AUDIO/VIDEO STEREO RECEIVER

VSX-411S KUC/CA

VSX-401 KUC, KUC/CA

PIONEER

The Art of Entertainment

Service Manual

- **Refer to the service manual ARP2060 for VSX – 3700S/KUC.**
- This manual is applicable to VSX – 411S/KUC/CA, VSX – 401/KUC and VSX – 401/KUC/CA.
- The " S " at the end of the model number indicates that the a programable remote control unit is supplied.

ORDER NO.
ARP2436

NOTE :

: Indicates a chip resistor.

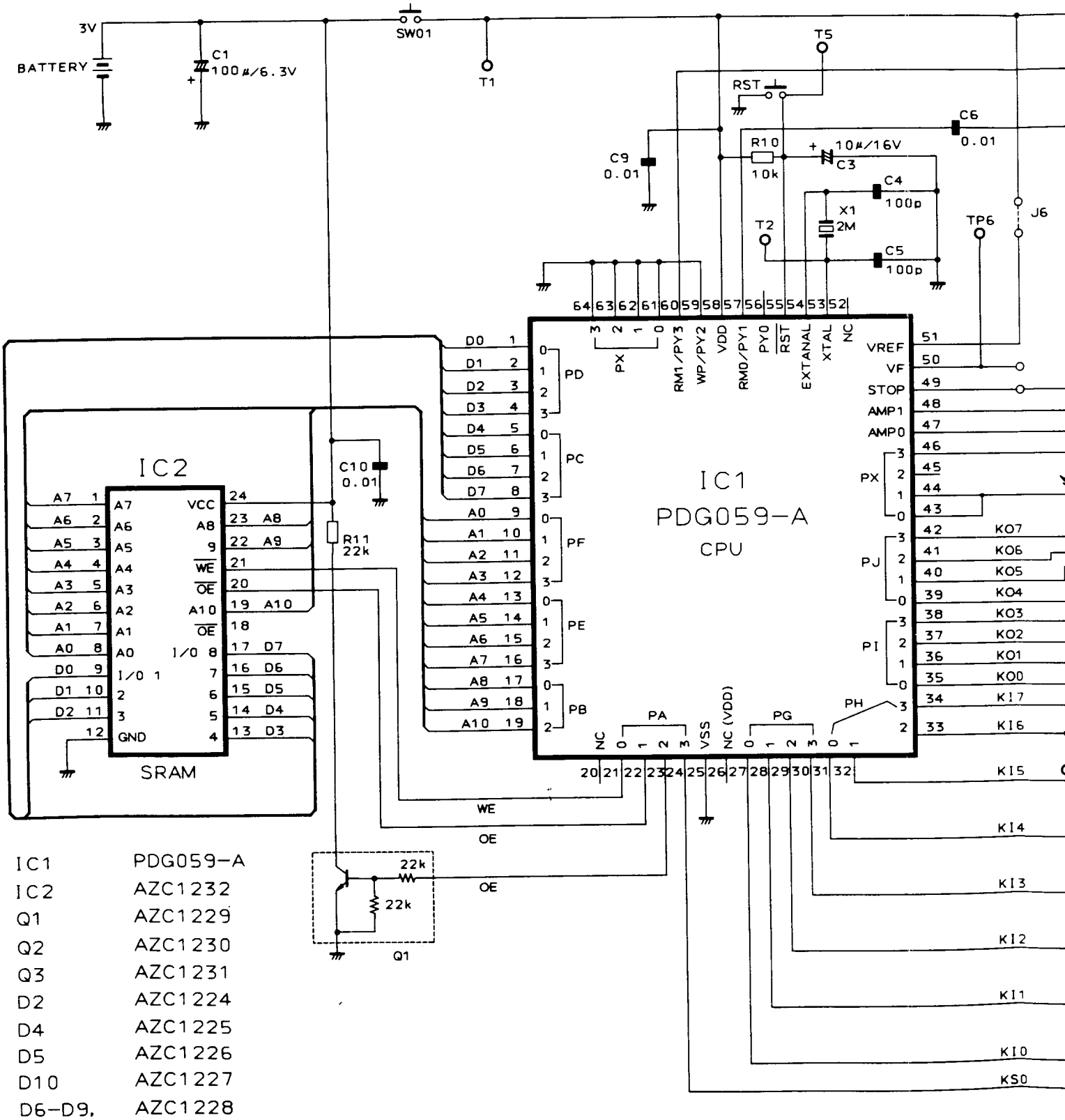
: Indicates a chip capacitor.

: Indicates a chip transistor.

: Indicates a chip diode.

1. RESISTORS :
Indicated in Ω, 1/4W, 1/8W, ± 5% tolerance unless otherwise noted k : kΩ
M : MΩ, (F) : ± 1%, (G) : ± 2%, (K) : ± 10%, (M) : ± 20% tolerance.

2. CAPACITORS :
Indicated in capacity (μF) / voltage (V) unless otherwise noed : pF
Indication without voltage is 50V except electrolytic capacitor.



IC1	PDG059-A
IC2	AZC1232
Q1	AZC1229
Q2	AZC1230
Q3	AZC1231
D2	AZC1224
D4	AZC1225
D5	AZC1226
D10	AZC1227
D6-D9, D11	AZC1228

less otherwise noted k:kΩ,
20% tolerance.

ss otherwise noed:pF
electrolytic capacitor.

3.OTHERS:

➡ :Signal route.

⊘ :Adjusting point.

The ⚠ mark found on some component parts
importance of the safety factor of the part. Therefore, when replacing,
be sure of use parts of identical designation.
※ marked capacitors and resistors have parts numbers.

This is the basic schematic diagram, but the actual circuit may vary
due to improvements in design.

The underline indicates the switch position

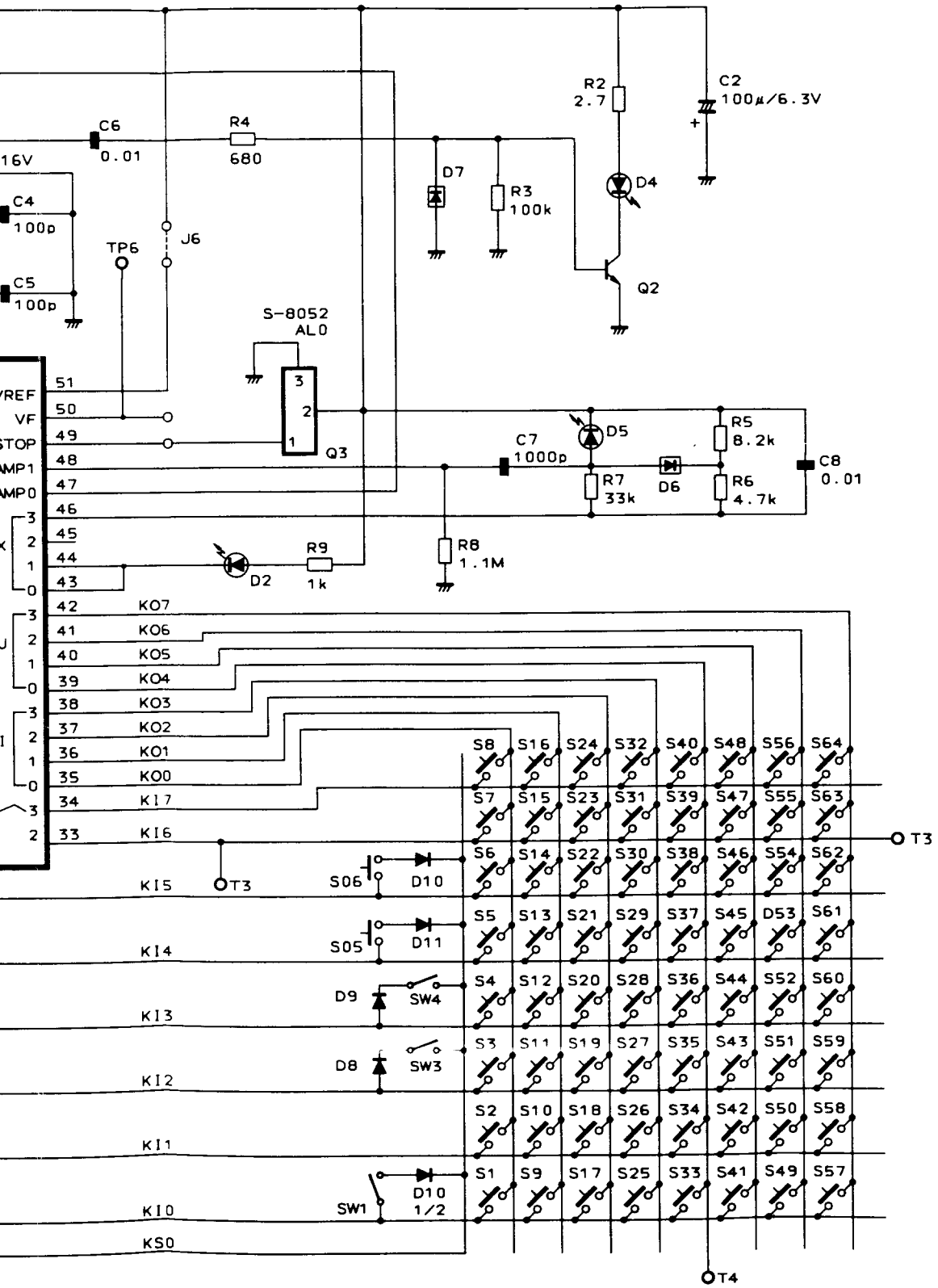
SW1:AUDIO/VIDEO
SR RECALL/USE/LEARN
SW3:SR RECALL/USE
SW4:USE/LEARN
MEMORY CLEAR
S5:ON/OFF
CENTER/REAR
S6:ON/OFF
RESET
RST:ON/OFF

TAPE/VCR
S2:TAPE SELECT/ANT
S10:■/■
S8:▶▶/▶▶
S6:◀◀/◀◀
S7:▶/▶
S9:◀
S15:1/VCR CH-
S16:2/VCR CH+
S1:VCR POWER
S12:●/●
S3:⏸/⏸

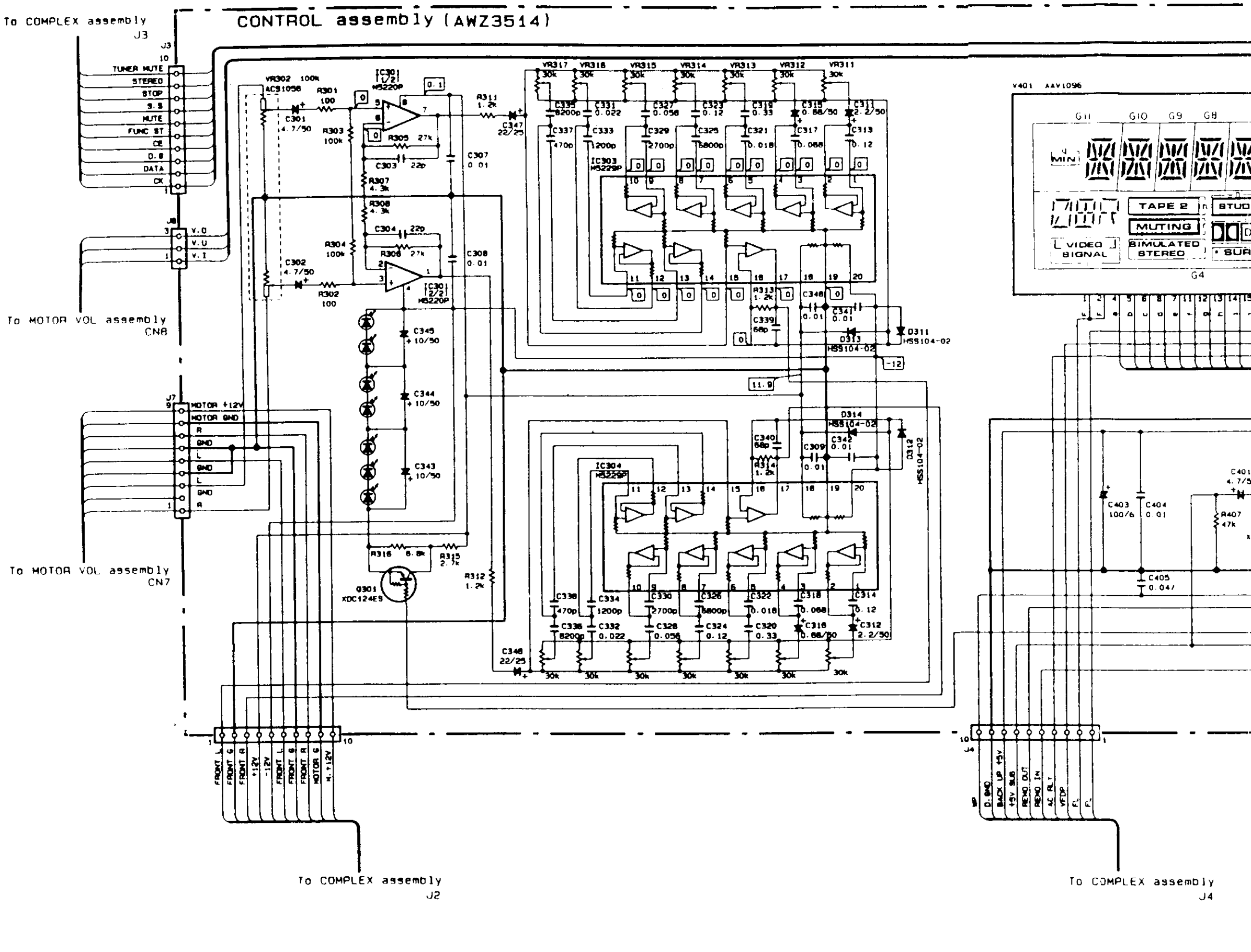
CD/VDP
S13:DISC-SELECT/DISPLAY
S14:■/■
S11:⏭/SEARHCH
S20:⏮/CHAP/FR-TIME
S21:▶▶/▶▶
S5:◀◀/◀◀
S22:▶/▶
S35:⏸/⏸
S17:CD POWER/VDP POWER
S18:PGM
S19:CD+10

TUNER/TV (CD/VDP)
S24:1 (1)
S25:2 (2)
S26:3 (3)
S27:4 (4)
S23:5 (5)
S29:6 (6)
S30:7 (7)
S31:8 (8)
S32:9 (9)
S28:0/10 (0/10)
S34:11 (MEMORY)
S36:12 (CLR)
S33:STATION+/TV-CH+
S37:STATION-/TV-CH-
S41:BAND/DUAL
S52:DIRECT ACCESS/TV-FUNC
S53:FREQUENCY+/TV-VOL+
S43:FREQUENCY-/TV-VOL-
S59:SCAN/TV-DISP
S42:HITS
S54:CUSTOM MEMORY/CH-RETURN
S40:TV-POWER

AMP/AMP
S50:VOLUME+
S51:VOLUME-
S58:VDP
S63:VCR
S64:MUTING
S48:RECEIVER POWER
S57:TAPE2
S47:SURROUND MODE
S56:SURROUND LEVEL+
S55:SURROUND LEVEL-
S61:TUNER
S46:SLEEP
S60:CD
S62:PHONO
S4:TAPE1
S49:LINE
S45:VIDEO SIGNAL SELECT
S38:DELAY TIME
S39:RETURN
S44:SIMULATED STEREO



3. SCHEMATIC AND P. C. BOARD DIAGRAM



1. RESISTORS:
   Indicated in Ω, ¼W, ⅛W, ±5% tolerance unless otherwise noted k : kΩ, M : MΩ, (F) : ±1%, (G) : ±2%, (K) : ±10% (M); ±20% tolerance

2. CAPACITORS:
   Indicated in capacity (μF)/voltage (V) unless otherwise noted p : pF
   Indication without voltage is 50V except electrolytic capacitor.

3. VOLTAGE, CURRENT:
   ▭ : Signal voltage at (100 W + 100 W 8Ω)output (1kHz)
   ▭ : DC voltage (V) at no input signal
   Value in ( ) is DC voltage at rated power.
   ⇦ mA : DC current at no input signal

4. OTHERS:
   ➡ : Signal route.
   ⊘ : Adjusting point.
   The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
   ※ marked capacitors and resistors have parts numbers.

   This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

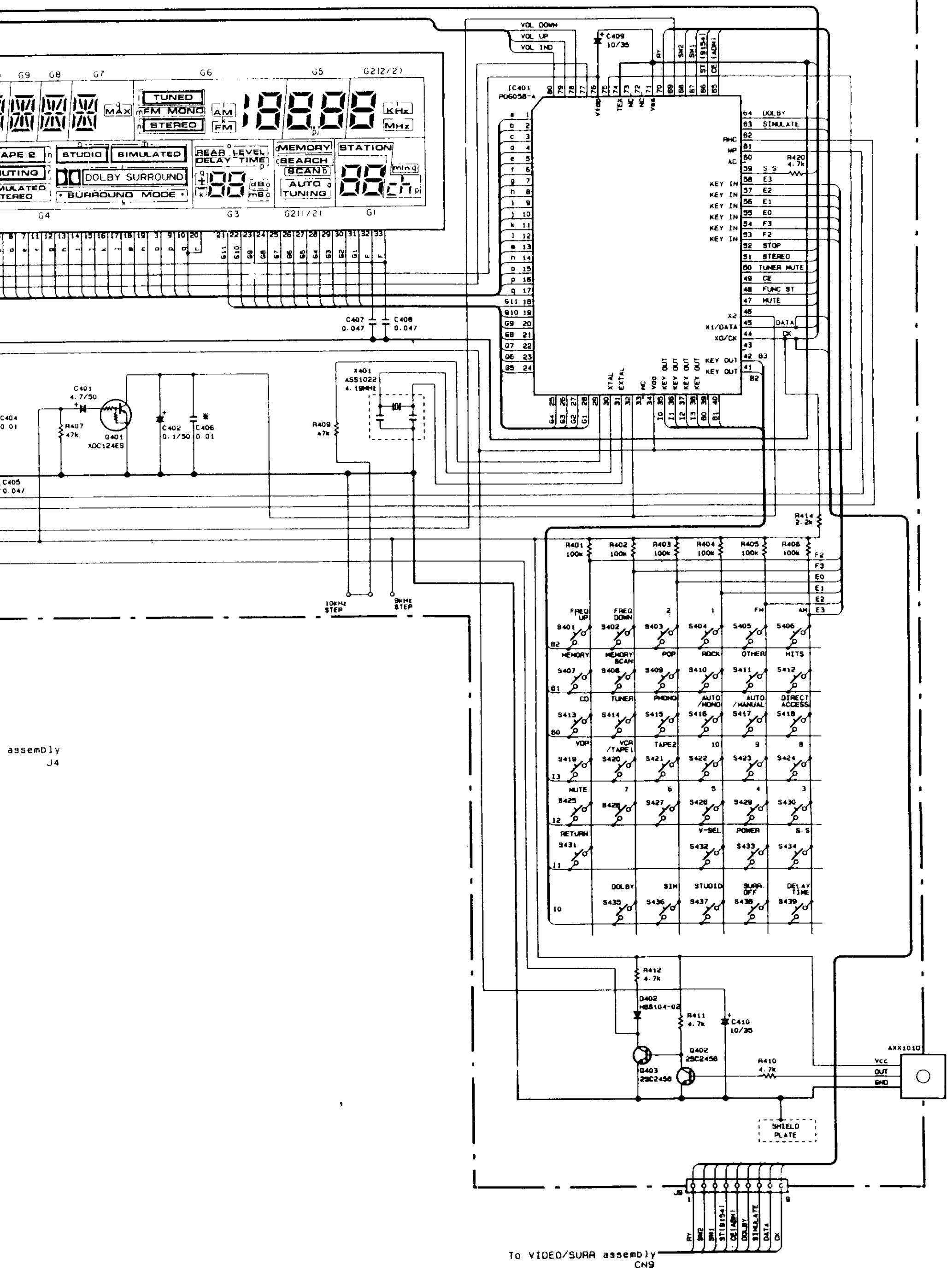
SWITCHES:

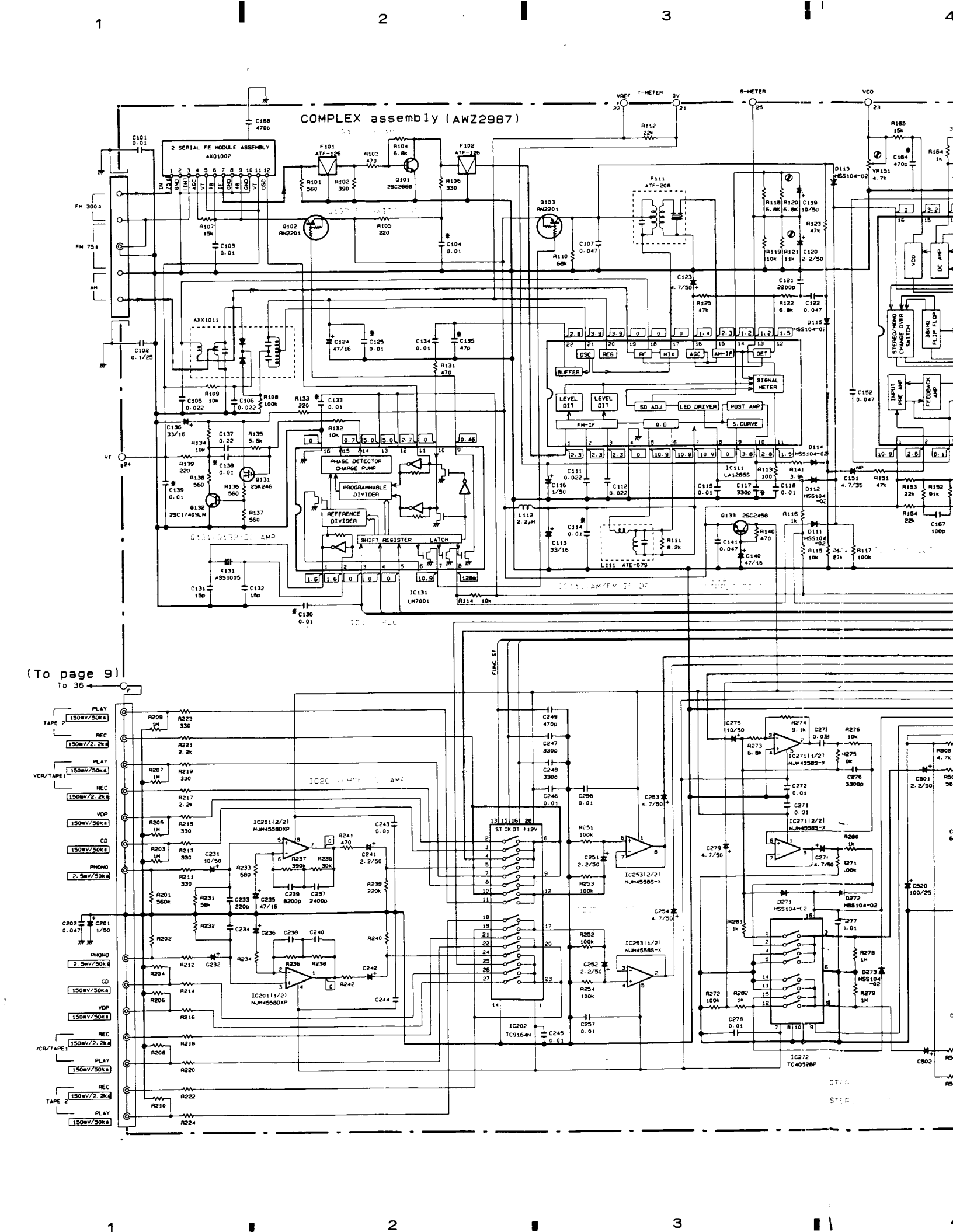
SP SWITCH assembly
S570 SP A ON-OFF / SP-B ON-OFF

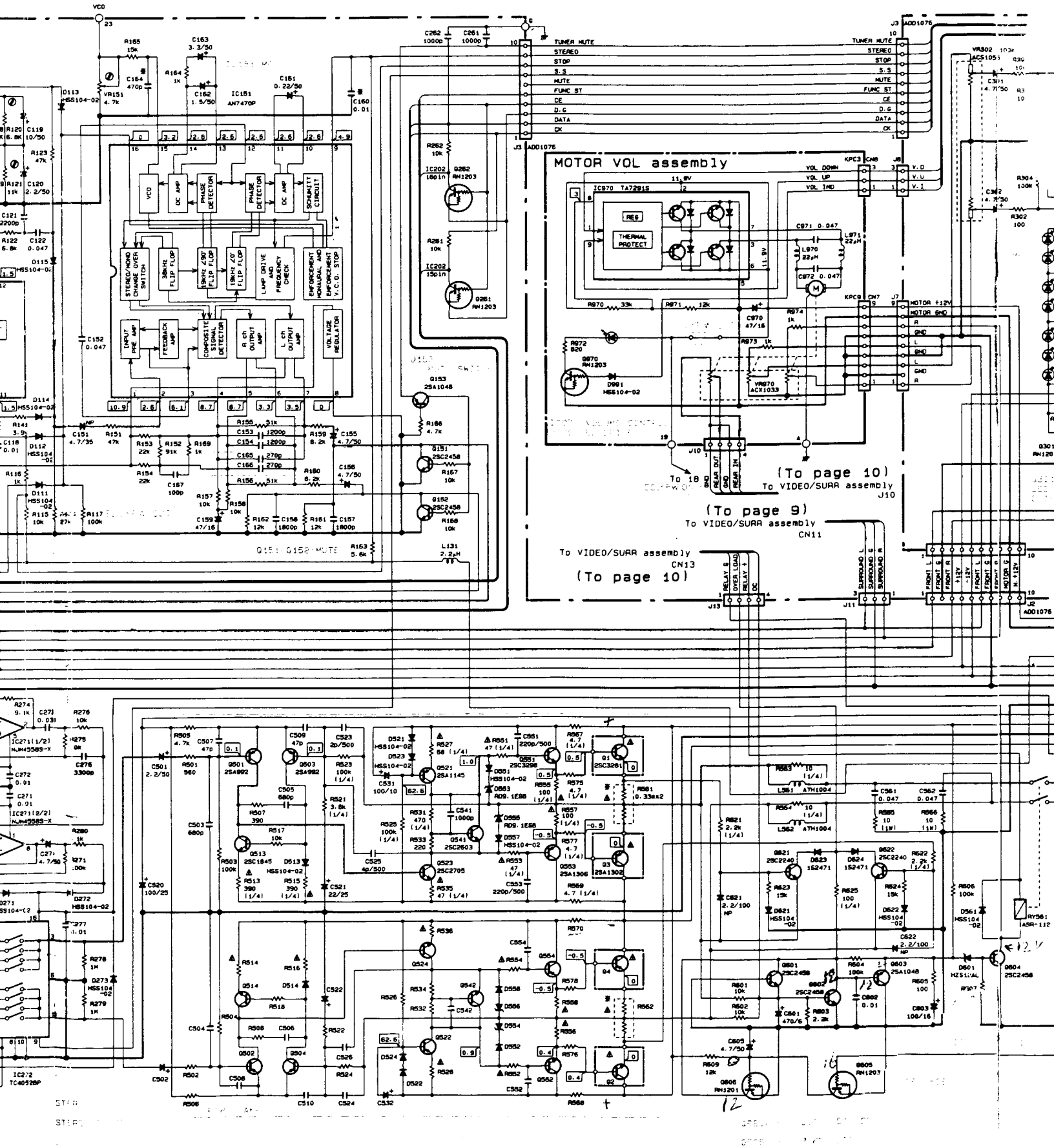
CONTROL assembly

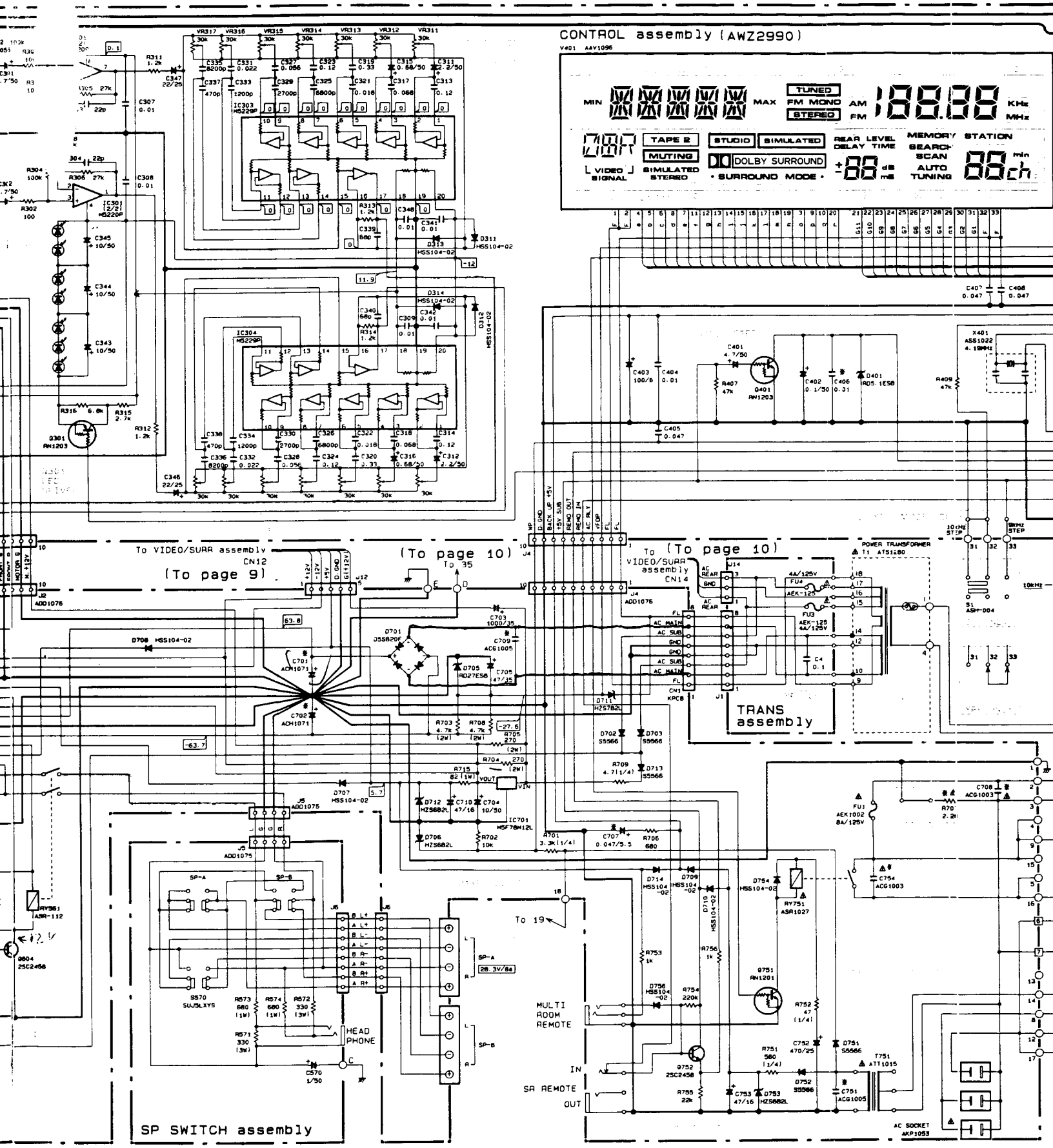
S401	FREQ UP	S421	TAPE2
S402	FREQ DOWN	S422	10
S403	2	S423	9
S404	1	S424	8
S405	FM	S425	MUTE
S406	AM	S426	7
S407	MEMORY	S427	6
S408	MEMORY SCAN	S428	5
S409	POP	S429	4
S410	ROCK	S430	3
S411	OTHER	S431	RETURN
S412	HITS	S432	V-SEL
S413	CD	S433	POWER
S414	TUNER	S434	S.S
S415	PHONO	S435	DOLBY
S416	AUTO/MONO	S436	SIM.
S417	AUTO/MANUAL	S437	STUDIO
S418	DIRECT ACCESS	S438	SURR.
S419	VDP	S439	DELAY TIME
S420	VCR/TAPE1		

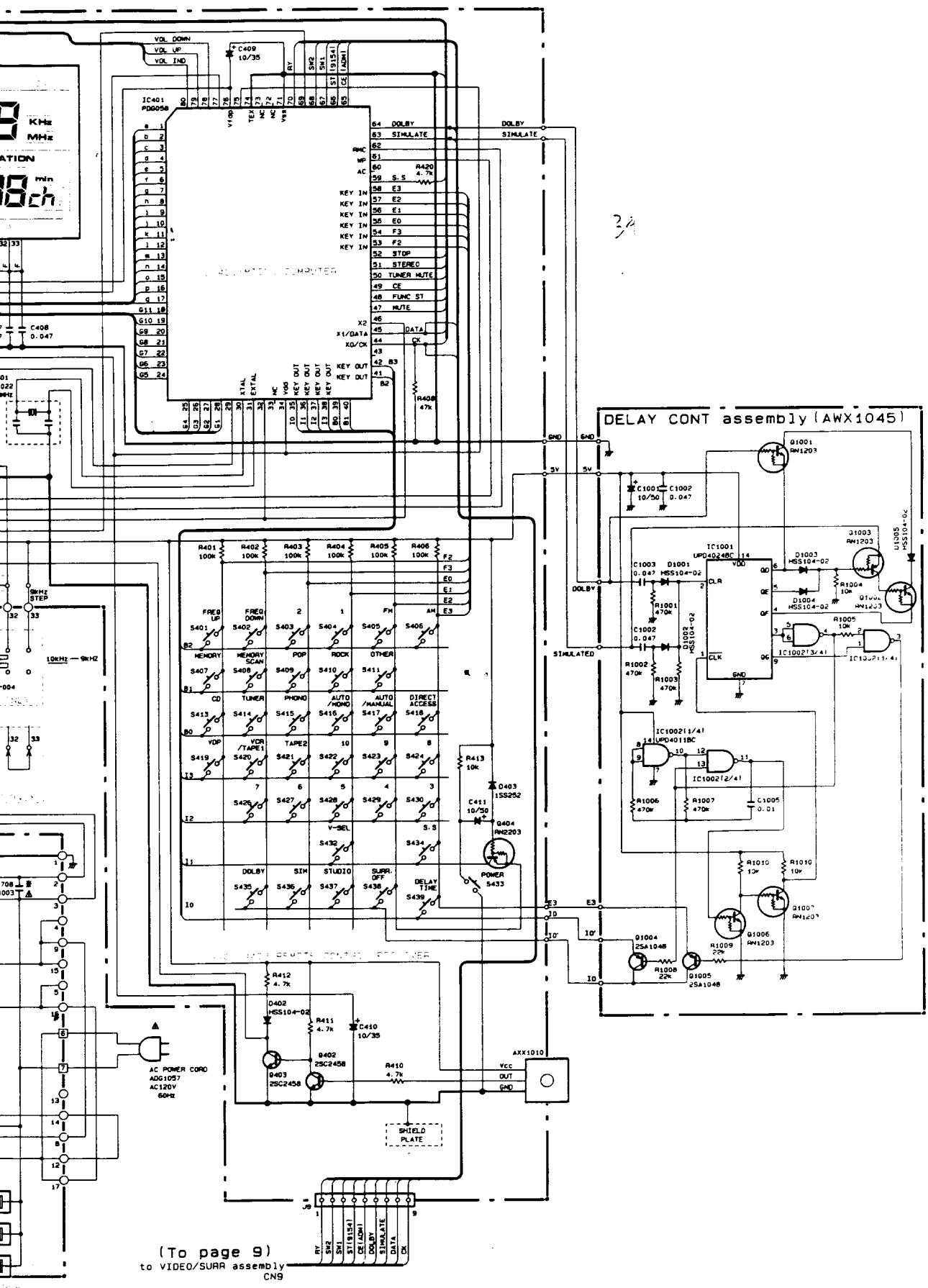
4 5 6

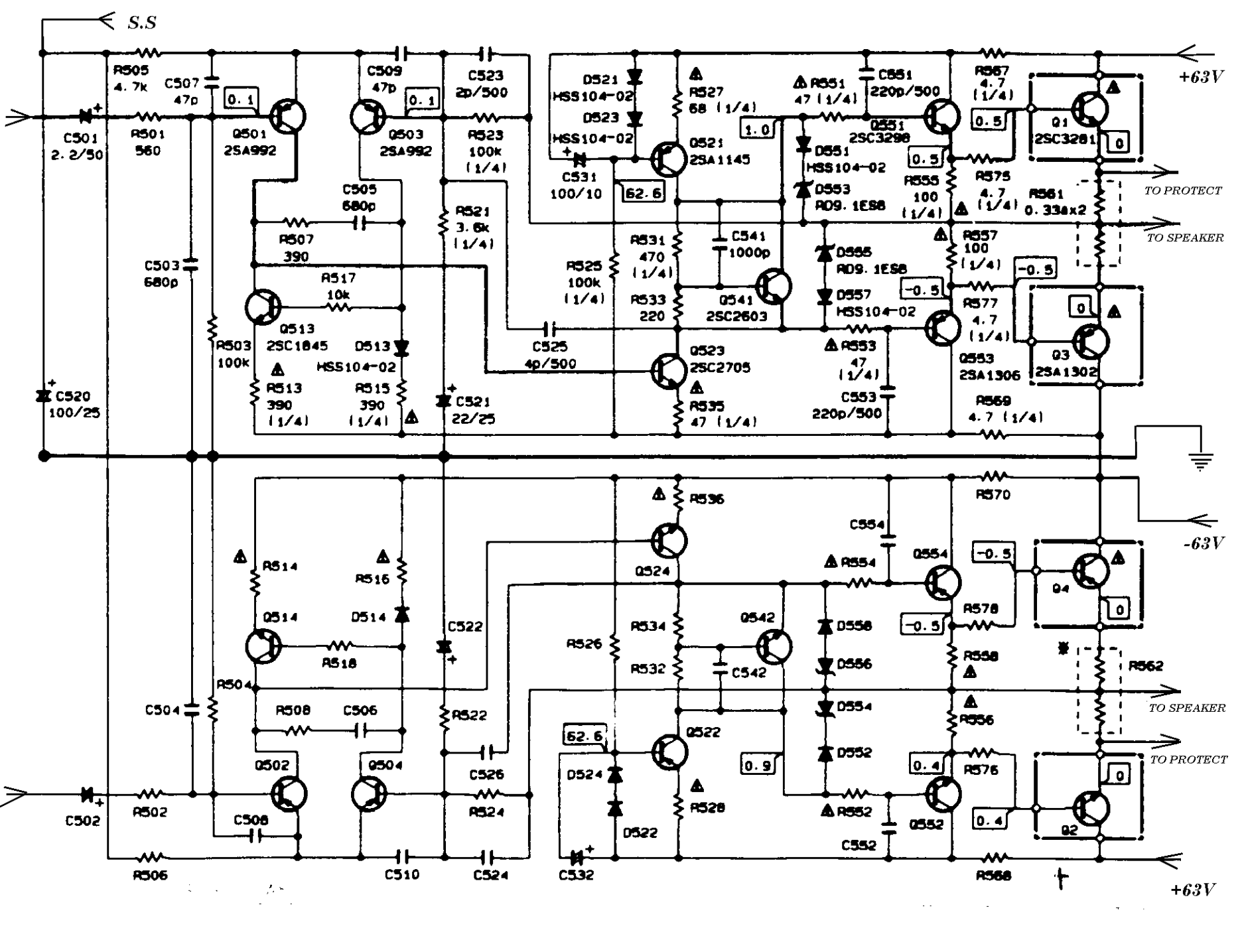

G9 G8 G7 G6 G5 G2(2/2)
TUNED
FM MONO
STEREO
AM
FM
MAX
KHz
MHz
TAPE 2
MUTING
SIMULATED
STEREO
STUDIO
SIMULATED
DOLBY SURROUND
SURROUND MODE
REAR LEVEL
DELAY TIME
dB
mS
MEMORY
SEARCH
SCAN
AUTO TUNING
STATION
min
G4 G3 G2(1/2) G1
C407 0.047
C408 0.047
C401 4.7/50
R407 47k
Q401 XDC124ES
C402 0.1/50
C406 0.01
C404 0.01
C405 0.047
X401 AS91022 4.19MHz
R409 47k
10KHz STEP
9KHz STEP
IC401 PDG058-A
VOL DOWN
VOL UP
VOL IND
C409 10/35
XTAL
EXTAL
NC
Vss
KEY OUT
DOLBY
SIMULATE
DATA
CK
KEY IN
STOP
STEREO
TUNER MUTE
FUNC ST
MUTE
X2
X1/DATA
XO/CK
R420 4.7k
R414 2.2k
R401 100k
R402 100k
R403 100k
R404 100k
R405 100k
R406 100k
FREQ UP
FREQ DOWN
MEMORY
MEMORY SCAN
POP
ROCK
OTHER
HITS
CD
TUNER
PHONO
AUTO /MONO
AUTO /MANUAL
DIRECT ACCESS
VDP
VCR /TAPE1
TAPE2
MUTE
RETURN
V-SEL
POWER
S.S
DOLBY
SIM
STUDIO
SURR. OFF
DELAY TIME
R412 4.7k
D402 MBB104-02
R411 4.7k
C410 10/35
Q402 2SC2458
Q403 2SC2458
R410 4.7k
AXX1010
Vcc
OUT
GND
SHIELD PLATE
J9
RY
SW2
SW1
ST(9154)
CE(ADM)
DOLBY
SIMULATE
DATA
CK
To VIDEO/SURR assembly CN9
assembly J4

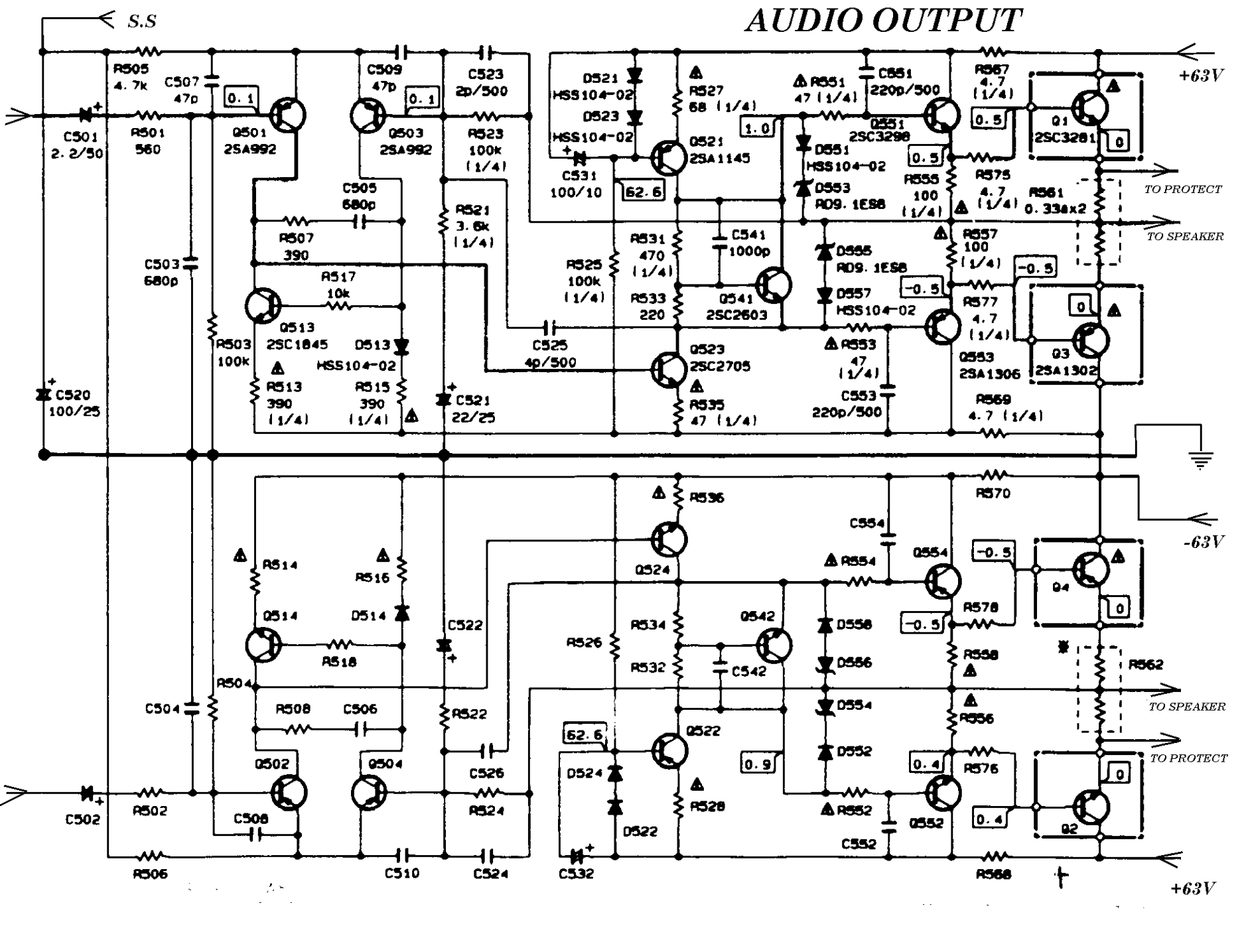

COMPLEX assembly (AWZ2987)
2 SERIAL FE MODULE ASSEMBLY
AXQ1002
AXX1011
PHASE DETECTOR
CHARGE PUMP
PROGRAMMABLE
DIVIDER
REFERENCE
DIVIDER
SHIFT REGISTER
LATCH
IC131
LM7001
X131
AS51005
IC111
LA1265S
SIGNAL
METER
LEVEL
DIT
SD ADJ.
LED DRIVER
POST AMP
S. CURVE
FM-IF
BUFFER
OSC
REG
RF
MIX
AGC
AM-IF
DET
VCO
DC AMP
STEREO/MONO
CHANGE OVER
SWITCH
38KHz
FLIP FLOP
INPUT
PRE AMP
FEEDBACK
AMP
VREF
T-METER
S-METER
VCO
FM 300Ω
FM 75Ω
AM
VT
IC201(2/2)
NJM4558DXP
IC201(1/2)
NJM4558DXP
IC202
TC9164N
IC253(2/2)
NJM4558S-X
IC253(1/2)
NJM4558S-X
IC271(2/2)
NJM4558S-X
IC271(1/2)
NJM4558S-X
IC272
TC4052BP
STCKDT +12V
FUNC ST
PLAY
TAPE 2
REC
PLAY
VCR/TAPE1
REC
VDP
CD
PHONO
2.5mV/50kΩ
PHONO
2.5mV/50kΩ
CD
VDP
REC
VCR/TAPE1
PLAY
REC
TAPE 2
PLAY
150mV/50kΩ
150mV/2.2kΩ
(To page 9)
To 36


MOTOR VOL assembly
TUNER MUTE
STEREO
STOP
S.S
MUTE
FUNC ST
CE
D.G
DATA
CK
VOL DOWN
VOL UP
VOL IND
MOTOR +12V
MOTOR GND
(To page 10)
To VIDEO/SURR assembly
J10
(To page 9)
To VIDEO/SURR assembly
CN11
To VIDEO/SURR assembly
CN13
(To page 10)
To 18
REAR OUT
REAR IN
RELAY S
OVER LOAD
RELAY +
DC
SURROUND L
SURROUND R
FRONT L
FRONT R
MOTOR S
M +12V
VCO
PHASE DETECTOR
DC AMP
SCHMITT CIRCUIT
STEREO/MONO CHANGE OVER SWITCH
38kHz FLIP FLOP
19kHz 90° FLIP FLOP
19kHz 0° FLIP FLOP
LAMP DRIVE FREQUENCY CHECK
ENFORCEMENT MONAURAL AMD ENFORCEMENT V.C.O. STOP
INPUT PRE AMP
FEEDBACK AMP
COMPOSITE SIGNAL DETECTOR
R ch OUTPUT AMP
L ch OUTPUT AMP
VOLTAGE REGULATOR
IC151 AN7470P
IC970 TA7291S
REG
THERMAL PROTECT
IC271(1/2) NJM4558S-X
IC271(2/2) NJM4558S-X
IC272 TC40528P


CONTROL assembly (AWZ2990)
V401 AAV1096
MIN
MAX
TUNED
FM MONO
STEREO
AM
FM
KHz
MHz
TAPE 2
MUTING
STUDIO
SIMULATED
DOLBY SURROUND
REAR LEVEL
DELAY TIME
MEMORY
SEARCH
SCAN
AUTO TUNING
STATION
min
ch
VIDEO SIGNAL
SIMULATED STEREO
SURROUND MODE
To VIDEO/SUAR assembly
CN12
(To page 9)
(To page 10)
To 35
To VIDEO/SUAR assembly CN14
(To page 10)
POWER TRANSFORMER
T1 AT51280
TRANS assembly
SP SWITCH assembly
To 19
MULTI ROOM REMOTE
IN
SR REMOTE
OUT
HEAD PHONE
AC SOCKET
AKP1053


DELAY CONT assembly (AWX1045)
(To page 9)
to VIDEO/SUAR assembly
CN9
AC POWER CORD
ADG1057
AC120V
60Hz
SHIELD PLATE
AXX1010
DOLBY
SIMULATE
DATA
CK
STOP
STEREO
TUNER MUTE
CE
FUNC ST
MUTE
KEY IN
KEY OUT
POWER
S433
DELAY TIME
S439
SURR. OFF
S438
STUDIO
S437
SIM
S436
DOLBY
S435
DIRECT ACCESS
S418
AUTO /MANUAL
S417
AUTO /MONO
S416
PHONO
S415
TUNER
S414
CD
S413
OTHER
S411
ROCK
S410
POP
S409
MEMORY SCAN
S408
MEMORY
S407
FREQ DOWN
S402
FREQ UP
S401
TAPE2
S422
VCR /TAPE1
S420
VDP
S419
V-SEL
S432
S.S
S434
IC1001 UPD40248C
IC1002 UPD4011BC
Q1001 RN1203
Q1003 RN1203
Q1004 2SA1048
Q1005 2SA1048
Q1006 RN1203
Q1007 RN1203
Q403 1SS252
Q404 RN2203
Q402 2SC2458
Q403 2SC2458
D1001 HSS104-02
D1003 HSS104-02
D1004 HSS104-02
D402 HSS104-02
D1005 HSS104-02
IC401 PD0058
R420 4.7k
R408 47k
R412 4.7k
R411 4.7k
R410 4.7k
R413 10k
R1001 470k
R1002 470k
R1003 470k
R1004 10k
R1005 10k
R1006 470k
R1007 470k
R1008 22k
R1009 22k
R1010 10k
C1005 0.01
C1002 0.047
C1003 0.047
C100 10/50
C409 10/35
C410 10/35
C411 10/50
C408 0.047
J6
RY
SW2
SW1
ST(9154)
CE(ADM)
DOLBY
SIMULATE
DATA
CK
VOL DOWN
VOL UP
VOL IND
GND
5V
3V
VCC
OUT


S.S
+63V
TO PROTECT
TO SPEAKER
-63V
TO SPEAKER
TO PROTECT
+63V
R505 4.7k
C507 47p
C501 2.2/50
R501 560
Q501 2SA992
C509 47p
Q503 2SA992
C523 2p/500
R523 100k (1/4)
C505 680p
R507 390
R521 3.6k (1/4)
C503 680p
R517 10k
Q513 2SC1845
R503 100k
D513 HSS104-02
R513 390 (1/4)
R515 390 (1/4)
C520 100/25
C521 22/25
C525 4p/500
D521 HSS104-02
D523 HSS104-02
C531 100/10
R527 68 (1/4)
Q521 2SA1145
R525 100k (1/4)
R531 470 (1/4)
C541 1000p
R533 220
Q541 2SC2603
Q523 2SC2705
R535 47 (1/4)
R551 47 (1/4)
C551 220p/500
Q551 2SC3298
D551 HSS104-02
D553 RD9.1ES8
D555 RD9.1ES8
D557 HSS104-02
R553 47 (1/4)
C553 220p/500
R555 100 (1/4)
R567 4.7 (1/4)
Q1 2SC3281
R575 4.7 (1/4)
R561 0.33Ωx2
R557 100 (1/4)
R577 4.7 (1/4)
Q553 2SA1306
Q3 2SA1302
R569 4.7 (1/4)
R536
Q524
R514
R516
Q514
D514
R518
C522
R504
C504
R508
C506
R522
Q502
Q504
C508
C526
R524
C502
R502
R506
C510
C524
C532
R526
R534
R532
Q542
C542
D524
D522
Q522
R528
D558
D556
D554
D552
R552
C552
Q552
R554
C554
Q554
R570
R578
R558
R556
R576
R568
Q4
Q2
R562


AUDIO OUTPUT
S.S
+63V
-63V
TO PROTECT
TO SPEAKER
TO SPEAKER
TO PROTECT
C501 2.2/50
R501 560
R505 4.7k
C507 47p
0.1
Q501 2SA992
C509 47p
0.1
Q503 2SA992
C523 2p/500
R523 100k (1/4)
C503 680p
C505 680p
R507 390
R521 3.6k (1/4)
R517 10k
Q513 2SC1845
D513 HSS104-02
R503 100k
R513 390 (1/4)
R515 390 (1/4)
C520 100/25
C521 22/25
C525 4p/500
D521 HSS104-02
D523 HSS104-02
C531 100/10
62.6
R527 68 (1/4)
Q521 2SA1145
R525 100k (1/4)
R531 470 (1/4)
R533 220
C541 1000p
Q541 2SC2603
Q523 2SC2705
R535 47 (1/4)
R551 47 (1/4)
C551 220p/500
Q551 2SC3298
1.0
D551 HSS104-02
D553 RD9.1ES8
D555 RD9.1ES8
D557 HSS104-02
R553 47 (1/4)
C553 220p/500
R567 4.7 (1/4)
0.5
Q1 2SC3281
R575 4.7 (1/4)
R555 100 (1/4)
R561 0.33Ωx2
R557 100 (1/4)
-0.5
R577 4.7 (1/4)
Q553 2SA1306
Q3 2SA1302
R569 4.7 (1/4)
R536
C554
R570
R514
R516
Q514
D514
R518
C522
R504
C504
R508
C506
R522
Q502
Q504
C526
R524
C508
C510
C524
R506
C502
R502
C532
Q524
R534
R532
R526
Q542
C542
R554
Q554
R578
Q4
R558
R562
R556
D558
D556
D554
D552
Q522
R528
D524
D522
0.9
0.4
R552
C552
Q552
R576
Q2
R568

VIDEO SURR assembly (AWZ2922)

IC801

VIDEO
1Vp-p/75Ω

VDP
REC
VCR
PLAY
MONITOR

C808 47/10
C807 47/10
C802 4.7/50
C809 10/50
R801 75
R805 4.7k
R808 1.2k
R819 4.7k
R820 4.7k
Q801
R806 1.2k
D801
D802
C801 8p
Q803
Q802
R807 560
R809 820
R810 100
R811 220k
R802 75
R803 68
R804 68
Q804
R812 4.7k
R813 1.2k
R815 1.2k
C805 100/25
Q808
R818 10k
C803 22/25
Q807
C804 8p
Q805
Q806
R817 100
D803
R814 560
R816 820
C806 47/16

To F 36
(To page 23)

CN9 KPC9
RY 9
SW2
SW1
ST(9154)
CE(ADM)
DOLBY
SIMULATE
DATA
CK
1

To CONTROL assembly
J9
(To page 26)

CN12 KPC5
+12V 1
-12V
+5V
D.GND
G(+12V) 5

To COMPLEX assembly
J12
(To page 25)

IC901
C903 0.01

Q901
R903 22k
Q902
R904 22k
Q903
Q904

IC904
C904 4.7/50
R905 11k

CN11 KPC3
Lch 3
GND
Rch 1
C901 0.047
R906 100k
C906 15p
VR901 ACS1038 INPUT BALANCE

To COMPLEX assembly
J11
(To page 25)

DOLBY TEST POINT 37

To COMPLEX assembly J13 (To

CN13 KPC4
1 RELAY-
OVER LOAD
RELAY+
DC 4

Q841
D841
R842 18k
R841 10 (1/4)
L840 0.7μH
R840 10(1/4)
C840 0.047
R843 100(1/4)
RY840 4SR1C05
R844 100(1/4)
D840

C913 4.7/50
IC906 (2/2)
C914 4.7/50
IC906 (1/2)
R908 100k
R909 330
R910 10k
C912 0.01
C911 0.01

C907 4.7/50
IC905(2/2)
C909 0.01
R911 100k
R914 22k
R913 22k
Q905
R916 1.2k
R915 22k
R912 100k
R917 1.5k
R918 6.8k
C908 4.7/50
IC905(1/2)
C91 0.0
C915 4.7/50

C917 5600p
R927 10k
R926 15k
C928 47/16
C923 0.47
C921 560p
C922 0.1
IC902
ANE VSS
LPF1 IN
LPF1 OUT
DP1 OUT
DP1 IN
REF
CC1
CC2
DIG VSS
OSC IN
OSC OUT
DEL1 SE DATA
DEL3 REQ
DEL2 SFCK

R924 4.7k
R938 10(1/4)
C929 220/10
C902 1000/6
C930 0.047/25
R933 1M
R907 1k
R925 16k
C932 4.7/50
X901 ASS1016 3.27MHz
R946 1k
R947 1k
CE(ADM)
CK
DATA

IC903
C935 4700p
C936 0.033
R941 47k
C944 47/25
R944 3.3k
R943 470
R940 270k
R939 270k
R945 6.2k
C941 0.033
C943 100/16
C942 22/16
C940 1/50
C939 0.1
C938 0.33/50
V-I CONV

PLEX assembly J13 (To page 24)

REAR AMP assembly

IC870 UPC1270H
Q871 2SC2240
Q870 2SC2458
D871, 872 HSS104-02
D870 1S2471

L REAR SPEAKER
R REAR SPEAKER

KPC5 CN15 — J15
1 REAR IN
GND
OVER LOAD
REAR OUT
REAR OUT
5

KPC3 CN16 — J16
1 -B
GND
+B
3

R840 101(1/4) C840 0.047
R870 1k
C870 2.2/50
C871 1000p
R872 56k
C872 100/10
R873 330
R874 39k
R871 12k
IC870
C874 0.033
R875 680k
C873 27p
R876 1.2k
R877 1k
Q870
R878 ACN-131 *
C875 0.047
C876 0.047
Q871
D870
C877 2.2/50
R879 2.2k
R880 2.2k
R881 15k
R882 15k
D871 D872
Q5 2SC3180
Q6 2SA1263

J10
1 REAR OUT
GND
REAR IN
GND
4

To MOTOR VOL assembly J10
(To page 24)

IC904	BU4066BL
IC903	LA2730
IC902	M50198P
IC801	NJM2253S
IC905, IC906	NJM4558DXP
IC901	TC9154AP
IC860	UPC79M12H
Q841	RN1201
Q807, 903, 904, 906	RN1203
Q901, 902	RN2203
Q803, 806	2SA1048
Q905	2SC1740S
Q801, 802, 804, 805	2SC2458
Q808	2SC2878
D801-803, 840, 841, Q901, 904-907	HSS104-02
D864	HZS5ALL
D860-863	10E2FD

MAIN SIGNAL
REAR SIGNAL
AM SIGNAL

Q905 R916 1.2k R917 1.5k R918 6.8k
R921 13k C915 4.7/50 C916 4.7/50
R919 3.9k R922 18k R923 7.5k R920 2.7k
D904 D907 D905 D906

C918 0.012 C919 10/50 R931 4.3k
C920 5600p NP C917 5600p
R929 15k R930 15k R926 15k
C928 47/16 C926 10/16 R932 10k
C922 0.1 C923 0.47 C924 0.47 C925 0.1 C927 560p

23 LPF1 IN, 22 LPF1 OUT, 21 OP1 OUT, 20 OP1 IN, 19 REF, 18 CC1, 17 CC2, 16 OP2 IN, 15 OP2 OUT, 14 LPF2 IN, 13 LPF2 OUT
2 OSC IN, 3 OSC OUT, 4 DEL1 SE DATA, 5, 6 DEL3 REQ, 7, 8 DEL2 SEEK, 9, 10, 11 DIG GND, 12 ANG GND

R933 1M
R934 22k
C945 0.047
R946 1k
R947 1k
Q906
CE(ADM) CK DATA

C923 470p
R942 620
R935 1.2k
C934 22/16
C937 4.7/50
15, 16, 9, 12, 11, 10
V-I CONV
V REF
R937 6.2k
R939 270k
R936 4.7k
R945 6.2k C941 0.033
C940 1/50 C939 0.1 C938 0.33/50 C931 10/50

To D
(To page 25)

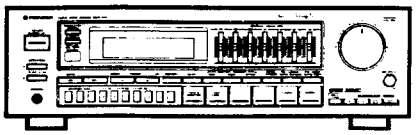
D860 D861 D862 D863
C861 2200/42 C862 2200/42 C860 0.01
KPC3 CN14
1 AC REAR
GND
AC REAR
3

To TRANS assembly J14
(To page 26)

R861 470(2W) C863 100/35
R860 470(1/4) IC860 VOUT VIN R821 4.7(1/4)
C865 47/10 D864 C864 47/25

PIONEER®
The future of sound and vision.

Service Manual



ORDER NO.
ARP2060

AUDIO/VIDEO STEREO RECEIVER

VSX-3700S
VSX-3600

MODELS VSX-3700S AND VSX-3600 HAVE FOLLOWING VERSIONS :

Type	Applicable model		Power requirement	Destination
	VSX-3700S	VSX-3600		
KUC	O	O	AC120V only	U.S.A. and Canada
SD	–	O	AC110V,120-127V,220V,240V (swltchable)	Kingdom of Saudi Arabia and General market
YPW	–	O	AC240V only	Australia

- **This manual is applicable to the VSX-3700S/KUC, VSX-3600/KUC, SD and YPW types.**
- **As to the VSX-3600/KUC, SD and YPW types, refer to pages 42-44.**
- **The " S " at the end of the model number indicates that a programable remote control unit is supplied.**

CONTENTS

1. SAFETY INFORMATION 2
2. SPECIFICATIONS 3
3. EXPLODED VIEWS, PACKING AND PARTS LIST 4
4. SCHEMATIC DIAGRAM AND P.C.BOARDS CONNECTION DIAGRAM 8
5. P.C.B 's PARTS LIST 27
6. ADJUSTMENTS 33
7. IC INFORMATION 35
8. REMOTE CONTROL UNIT (AXD1150) 37
9. FOR VSX-3600/KUC, SD AND YPW TYPES 42
10. PANEL FACILITIES 44

PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
PIONEER ELECTRONICS SERVICE INC. P.O. Box 1760, Long Beach, California 90801 U.S.A.
PIONEER ELECTRONICS OF CANADA, INC. 505 Cochrane Drive, Markham, Ontario L3R 8E3 Canada
PIONEER ELECTRONIC [EUROPE] N.V. Keetberglaan 1, 2740 Beveren, Belgium
PIONEER ELECTRONICS AUSTRALIA PTY. LTD. 178-184 Boundary Road, Braeside, Victoria 3195, Australia TEL: [03] 580-9911

© PIONEER ELECTRONIC CORPORATION 1990

YV JUNE 1990 Printed in Japan.

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).
When servicing or handling circuit boards and other components which contain lead in in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

1. SAFETY INFORMATION

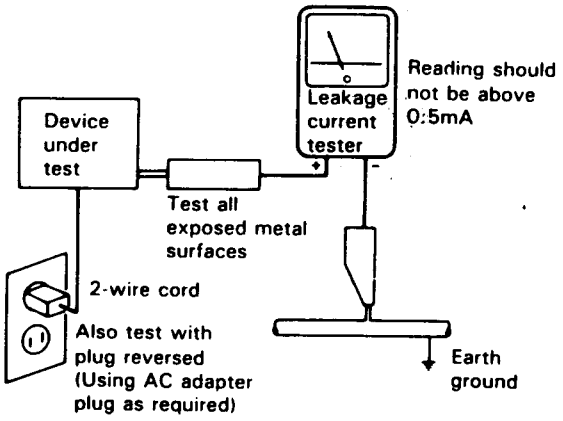
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.


Reading should not be above 0.5mA
Leakage current tester
Device under test
Test all exposed metal surfaces
2-wire cord
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

2. SPECIFICATIONS

Amplifier Section

[Front] (only front channels driven)

Continuous Average Power Output is 100 watts* per channel, min., at 8 ohms from 20 Hertz to 20,000 Hertz with no more than 0.05 % total harmonic distortion.**

Continuous Power Output (only rear channels driven)**
Rear: 1 kHz, T.H.D. 0.08%, 8 Ω ..... 15 W + 15 W
Dynamic power output (with EIA test signal)
2/4/8 Ω ..... 230 W/200 W/150 W
Input (Sensitivity/ Impedance)
PHONO ..... 2.5 mV/47 kΩ
CD, VDP/CDV, VCR/TAPE 1, TAPE 2 ..... 150 mV/47 kΩ
Phono Overload Level (T.H.D. 0.01 %, 1,000 Hz)
PHONO ..... 130 mV
Output Level
TAPE REC ..... 150 mV/2.2 kΩ
Frequency Response
PHONO (RIAA Equalization) ..... 20 Hz to 20,000 Hz ±0.5 dB
CD, VDP/CDV, VCR/TAPE 1, TAPE 2
..... 10 Hz to 70,000 Hz $^{+0.5}_{-3.0}$ dB
Signal-to-Noise Ratio (IHF, short circuited, A network)
PHONO ..... 72 dB
CD, VDP/CDV, VCR/TAPE 1, TAPE 2 ..... 97 dB
Signal-to-Noise Ratio [EIA, at 1 W (1 kHz)]
PHONO ..... 75 dB
CD, VDP/CDV, VCR/TAPE 1, TAPE 2 ..... 80 dB
Graphic Equalizer frequency band ..... 60 Hz, 150 Hz, 400 Hz, 1 kHz, 2.4 kHz, 6 kHz, 15 kHz, ±8 dB

FM Tuner Section

Frequency range ..... 87.5 MHz to 108 MHz
Usable Sensitivity ..... 10.8 dBf, IHF (0.95 μV/75 Ω)
50 dB Quieting Sensitivity
MONO ..... 15.3 dBf (1.6 μV/75 Ω)
STEREO ..... 37.1 dBf (19.5 μV/75 Ω)
Signal-to-Noise Ratio
MONO ..... 80 dB (at 85 dBf)
STEREO ..... 76 dB (at 85 dBf)
Distortion
STEREO ..... 0.3 % (1 kHz)
Alternate Channel Selectivity ..... 55 dB (400 kHz)
Stereo Separation ..... 35 dB (1 kHz)
Frequency Response ..... 30 Hz to 15 kHz (±1 dB)
Antenna Input ..... 300 Ω balanced, 75 Ω unbalanced

AM Tuner Section

Frequency range
U.S. and Canadian models ..... 530 kHz to 1,700 kHz
Australian model ..... 531 kHz to 1,602 kHz
Multi-voltage model
With 10 kHz step ..... 530 kHz to 1,700 kHz
With 9 kHz step ..... 531 kHz to 1,602 kHz
Sensitivity
IHF, Loop antenna ..... 300 μV/m
Selectivity ..... 20 dB
Signal-to-Noise Ratio ..... 50 dB
Antenna ..... AM Loop Antenna

VIDEO Section

Input (Sensitivity/Impedance)
VCR, VDP/CDV ..... 1 Vp-p/75 Ω
Output (Level/Impedance)
VCR, MONITOR ..... 1 Vp-p/7[illegible] Ω
Frequency Response
VCR, VDP/CDV → MONITOR ..... 5 Hz - 10 MHz $^{+0}_{-3}$ dB
Signal to Noise Ratio ..... 55 dB
Isolation ..... 55 dB

Miscellaneous

Power Requirements
U.S., Canadian model ..... AC 120 Volts, 60 Hz
Australian model ..... a.c. 240 Volts ~, 50/60 Hz
Multi-voltage models ..... ~AC 110 V/ 120 V~127 V/ 220 V/ 240 V (switchable), 50/60 Hz
Power Consumption
U.S., Canadian models ..... 390 W (UL), 500 VA (CSA)
Australian model ..... 600 W
Multi-voltage models ..... 625 W
In standby condition ..... 3 W
AC Outlets (Except for Australian model)
SWITCHED x 2 ..... TOTAL 100 W MAX
UNSWITCHED x 1 ..... 200 W MAX
Dimentions ..... 420 (W) X 125 (H) X 330 (D) mm
16-9/16(W) X 4-15/16 (H) X 13 (D) in
Weight (without package) ..... 8.5 kg (18 lb 12 oz)

Furnished Parts

FM T-type Antenna 1
AM Loop Antenna 1
Remote control unit 1
Dry cell battery
VSX-3700S: size "AA" (LR6/AM-3) Alkaline 2
VSX-3600: size "AA" (R6/UM-3) 2
Operating Instructions 1
VSX-3700S: Template 1

** Measured pursuant to the Federal Trade Commission's Trade Regulation rule on Power Output Claims for Amplifier.*

*** Measured By Audio Spectrum Analyzer.*

NOTE:
Specifications and design subject to possible modification without notice due to improvements.

3. EXPLODED VIEWS, PACKING AND PARTS LIST

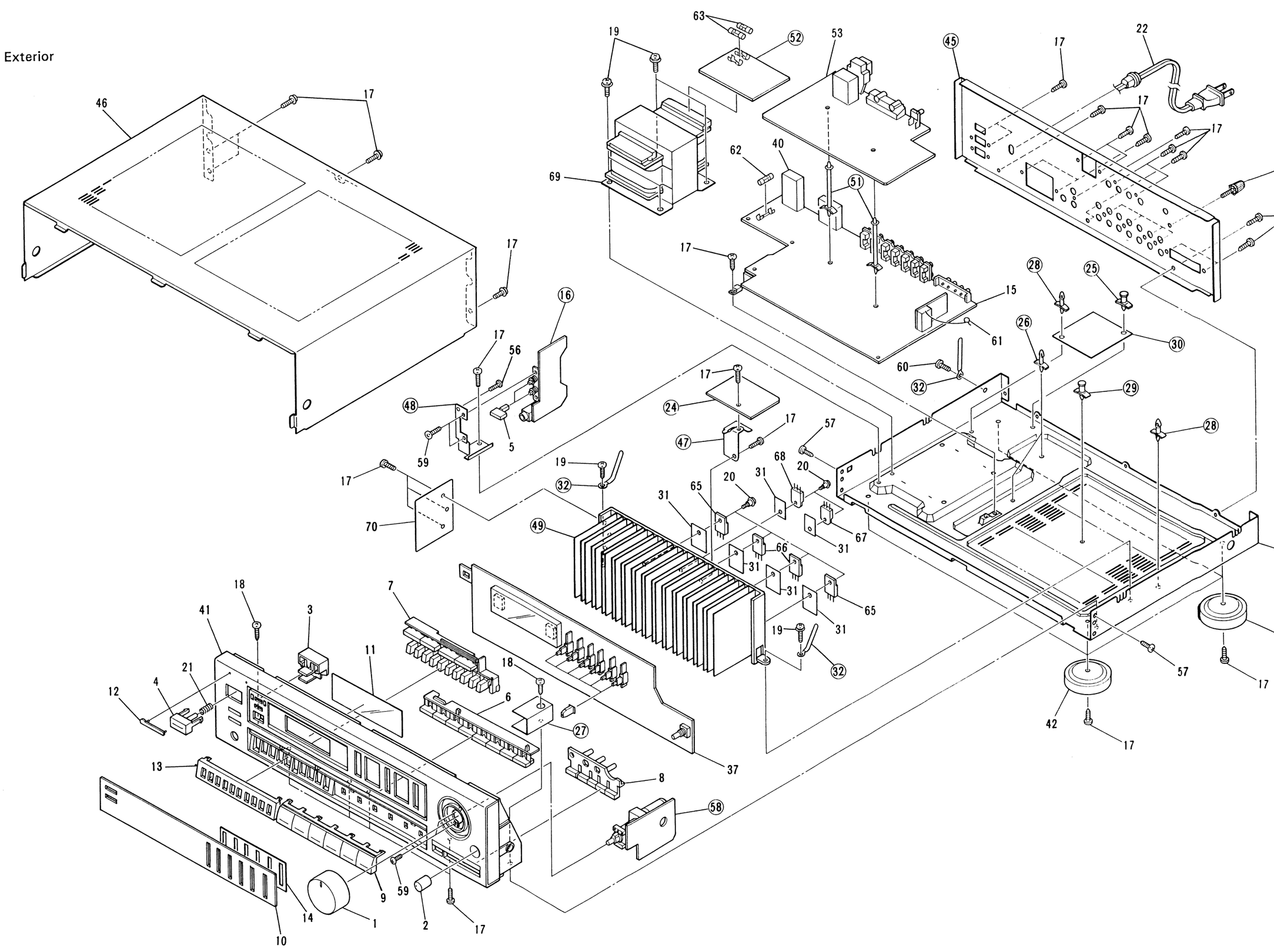
NOTES:

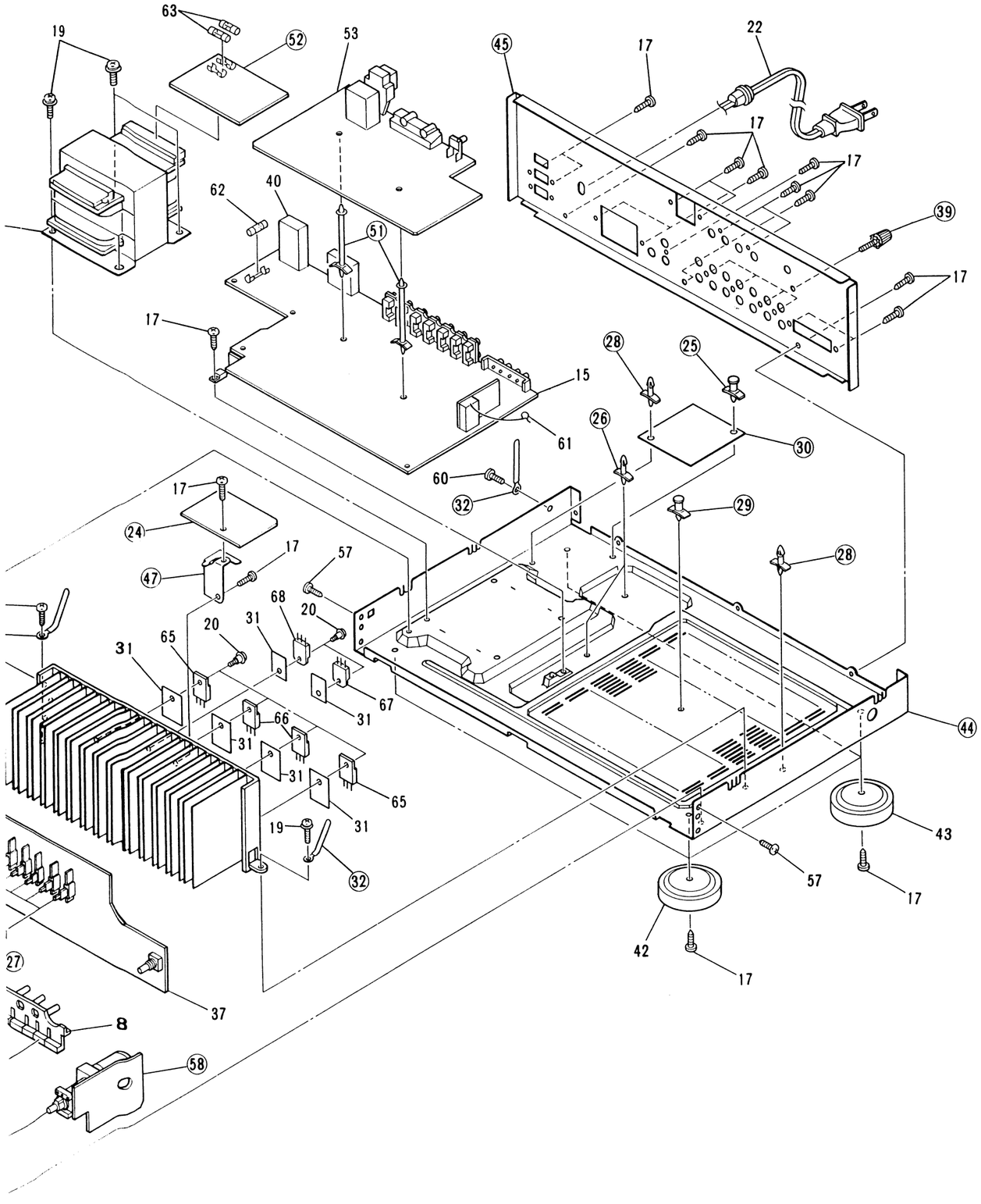
- *Parts without part number cannot be supplied.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

Parts list of Exterior and packing

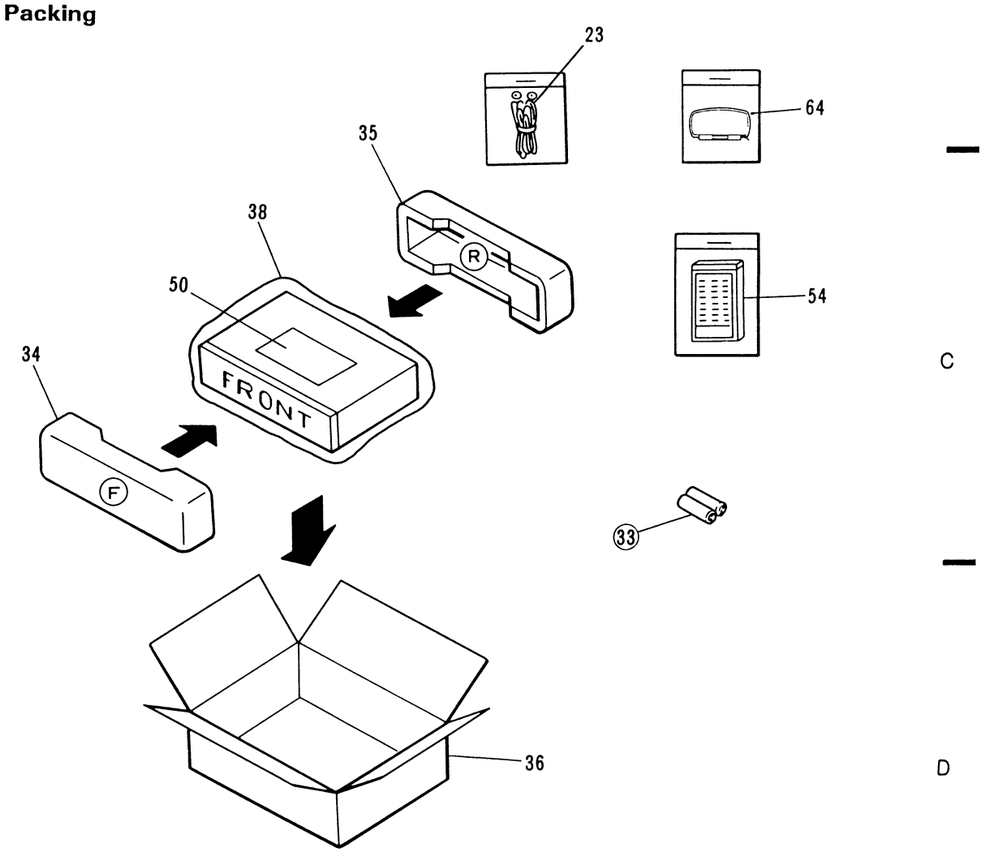
Mark	No.	Description	Parts No.
	1	KNOB	AAB1119
	2	KNOB	AAB1133
	3	KNOB(S.S. PUSH)	AAD1660
	4	KNOB	AAD1661
	5	KNOB(SPEAKER)	AAD1662
	6	KNOB(TUNER FUNCTION)	AAD1663
	7	KNOB(STATION)	AAD1665
	8	KNOB(SURROUND)	AAD1808
	9	KNOB(FUNCTION)	AAD1818
	10	PANEL	AAK1981
	11	PLATE	AAK1982
	12	NAME PLATE(METAL)	AAM1029
	13	STATION SASH	AAP1111
	14	EQUALIZER SASH	AAP1120
	15	COMPLEX ASSEMBLY	AWZ2987
	16	SP SW ASSEMBLY	
	17	SCREW	ABA−298
	18	SCREW(STEEL)	ABA1009
	19	SCREW	ABA1054
	20	SCREW	ABA1082
⚠	21	COIL SPRING	ABH1064
	22	AC POWER CORD	ADG1057
	23	FM ANTENNA	ADH1004
	24	REAR AMP ASSEMBLY	
	25	PCB SPACER	
	26	PCB SUPPORT	
	27	PVC PLATE	
	28	PCB SUPPORT	
	29	PCB SUPPORT	
	30	BARRIER	
	31	MICA SHEET	AEE1014
	32	CLAMPER	
	33	AM−3 DRY CELL	
	34	FRONT PAD	AHA1336
	35	REAR PAD	AHA1337
	36	PACKING CASE	AHD1889
	37	CONTROL ASSEMBLY	AWZ2990
	38	SHEET	AHG1016
	39	TERMINAL SCREW	
⚠	40	3P AC OUTLET	AKP1053
	41	FRONT PANEL	AMB1661
	42	INSULATOR ASSEMBLY	AMR1434
	43	INSULATOR ASSEMBLY	AMR1435
	44	CHASSIS	
	45	REAR PANEL	
	46	METAL BONNET	AZN1783
	47	PCB SUPPORT	
	48	PLATE	
	49	HEAT SINK	
	50	OPERATING INSTRUCTIONS(E)	ARB1258
	51	PCB SUPPORT	
	52	TRANS ASSEMBLY	
	53	VIDEO/SURR ASSEMBLY	AWZ2992
	54	REMOTE CONSOLE UNIT	AXD1150
	55	SCREW	BBT30P060FZK
	56	SCREW	BPZ26P080FMC
	57	SCREW	CBZ30P060FZK
	58	MOTR VOL ASSEMBLY	
	59	SCREW	PMZ30P060FCU
	60	SCREW	VCZ30P060FCU
	61	CERAMIC CAPACITOR	CKDYB471K50
⚠	62	FUSE(8A, FU1)	AEK1002
⚠	63	FUSE(4A, FU3, FU4)	AEK−125
	64	LOOP ANTENNA	ATB1005
⚠	65	TRANSISTOR Q1,Q2	2SC3281
⚠	66	TRANSISTOR Q3,Q4	2SA1302
⚠	67	TRANSISTOR Q5	2SC3180N
⚠	68	TRANSISTOR Q6	2SA1263N
⚠	69	POWER TRANSFORMER	ATS1280
	70	DELAY CONT ASSEMBLY	AWX1045

Exterior


46
17
16
56
48
5
59
17
70
19
32
49
63
52
53
69
62
40
51
17
15
61
45
22
39
28
25
26
30
60
32
29
24
47
57
68
20
31
65
66
67
43
42
18
7
41
3
11
21
4
12
6
27
37
8
58
13
9
59
14
1
2
10


63
19
52
53
45
17
22
17
17
62
40
51
39
17
17
28
25
15
26
61
30
60
32
29
17
24
17
47
57
28
68
20
31
65
20
31
67
31
66
31
31
65
19
31
32
44
43
57
17
42
17
27
37
8
58

Packing


23
64
35
38
R
50
54
FRONT
34
F
33
36

4. SCHEMATIC DIAGRAM AND P.C.BOARDS CONNECTION DIAGRAM

1. RESISTORS:
Indicated in Ω, ¼W, ⅛W, ±5% tolerance unless otherwise noted k : kΩ, M : MΩ, (F) : ±1%, (G) : ±2%, (K) : ±10% (M); ±20% tolerance

2. CAPACITORS:
Indicated in capacity (μF)/voltage (V) unless otherwise noted p : pF
Indication without voltage is 50V except electrolytic capacitor.

3. VOLTAGE, CURRENT:
: Signal voltage at (W + W 8Ω)output (1kHz)
: DC voltage (V) at no input signal
Value in ( ) is DC voltage at rated power.
⇦ mA : DC current at no input signal

4. OTHERS:
➡ : Signal route.
⊘ : Adjusting point.
The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
※ marked capacitors and resistors have parts numbers.

This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

SWITCHES:

SP SWITCH assembly

S570 SP A ON-OFF / SP-B ON-OFF

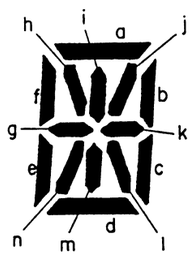
CONTROL assembly

S401	FREQ UP	S421	TAPE2
S402	FREQ DOWN	S422	10
S403	2	S423	9
S404	1	S424	8
S405	FM	S426	7
S406	AM	S427	6
S407	MEMORY	S428	5
S408	MEMORY SCAN	S429	4
S409	POP	S430	3
S410	ROCK	S432	V-SEL
S411	OTHER	S433	POWER
S413	CD	S434	S.S
S414	TUNER	S435	DOLBY
S415	PHONO	S436	SIM.
S416	AUTO/MONO	S437	STUDIO
S417	AUTO/MANUAL	S438	SURR.
S418	DIRECT ACCESS	S439	DELAY TIME
S419	VDP		
S420	VCR/TAPE1		

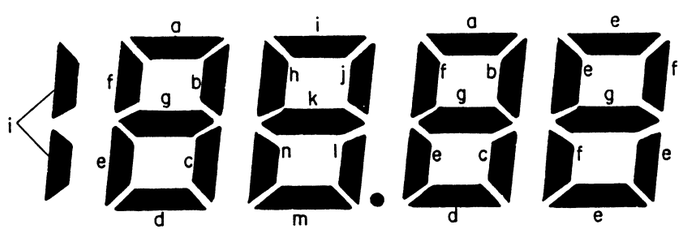
S1 9k - 10k (VSX-3600/SD ONLY)

S2 LINE VOLTAGE SELECTOR (VSX-3600/SD ONLY)
110V-127V / 220V-240V

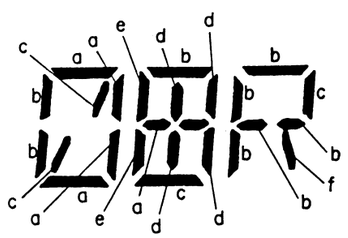
S3 LINE VOLTAGE SELECTOR (VSX-3600/SD ONLY)
110V / 120-127V / 220V /240V



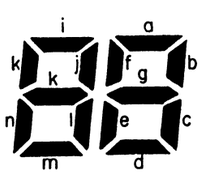
G11-G7



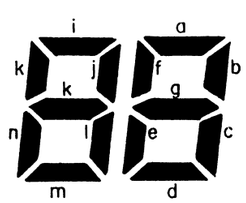
G2,G5,G6



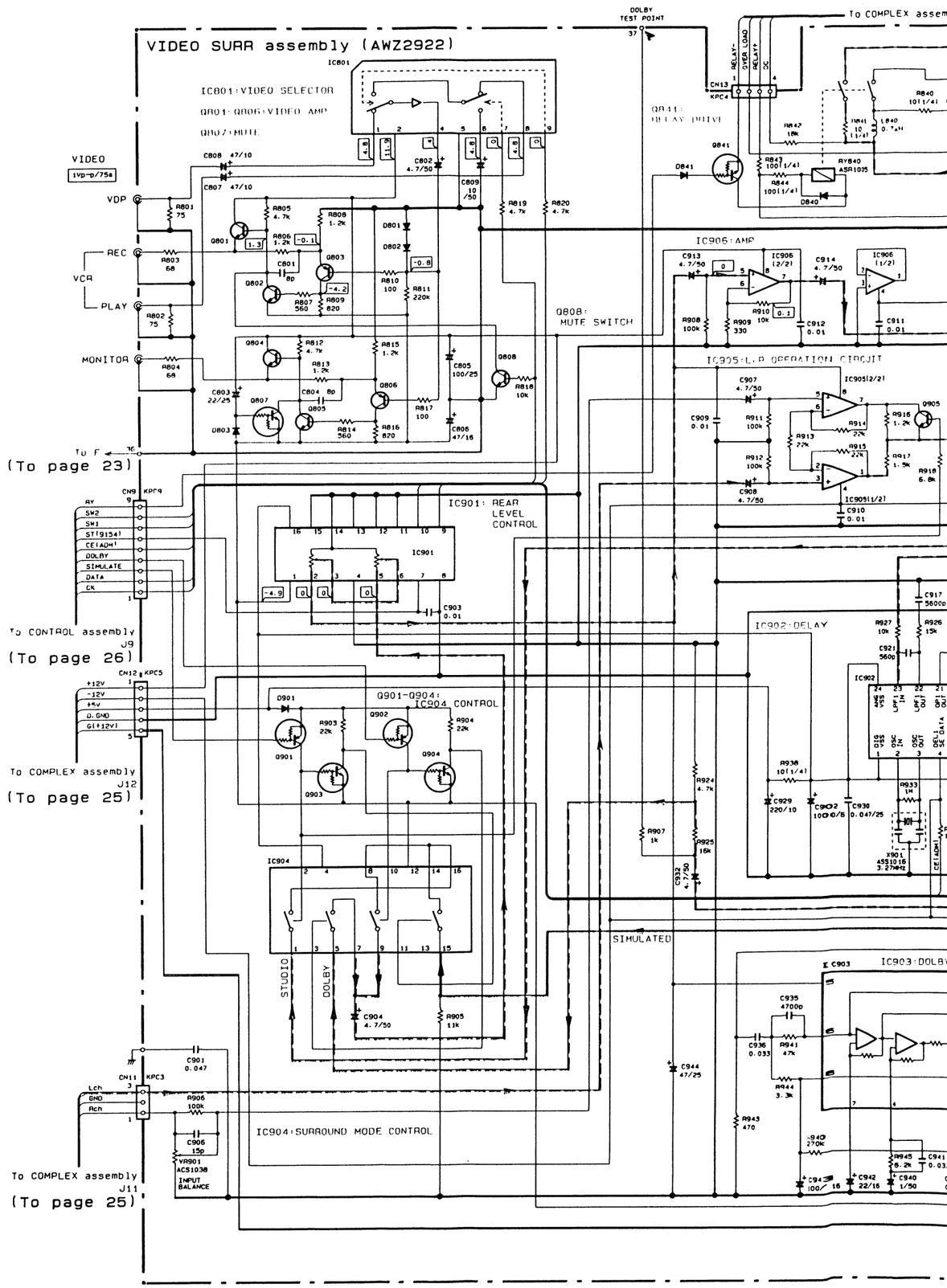
G4

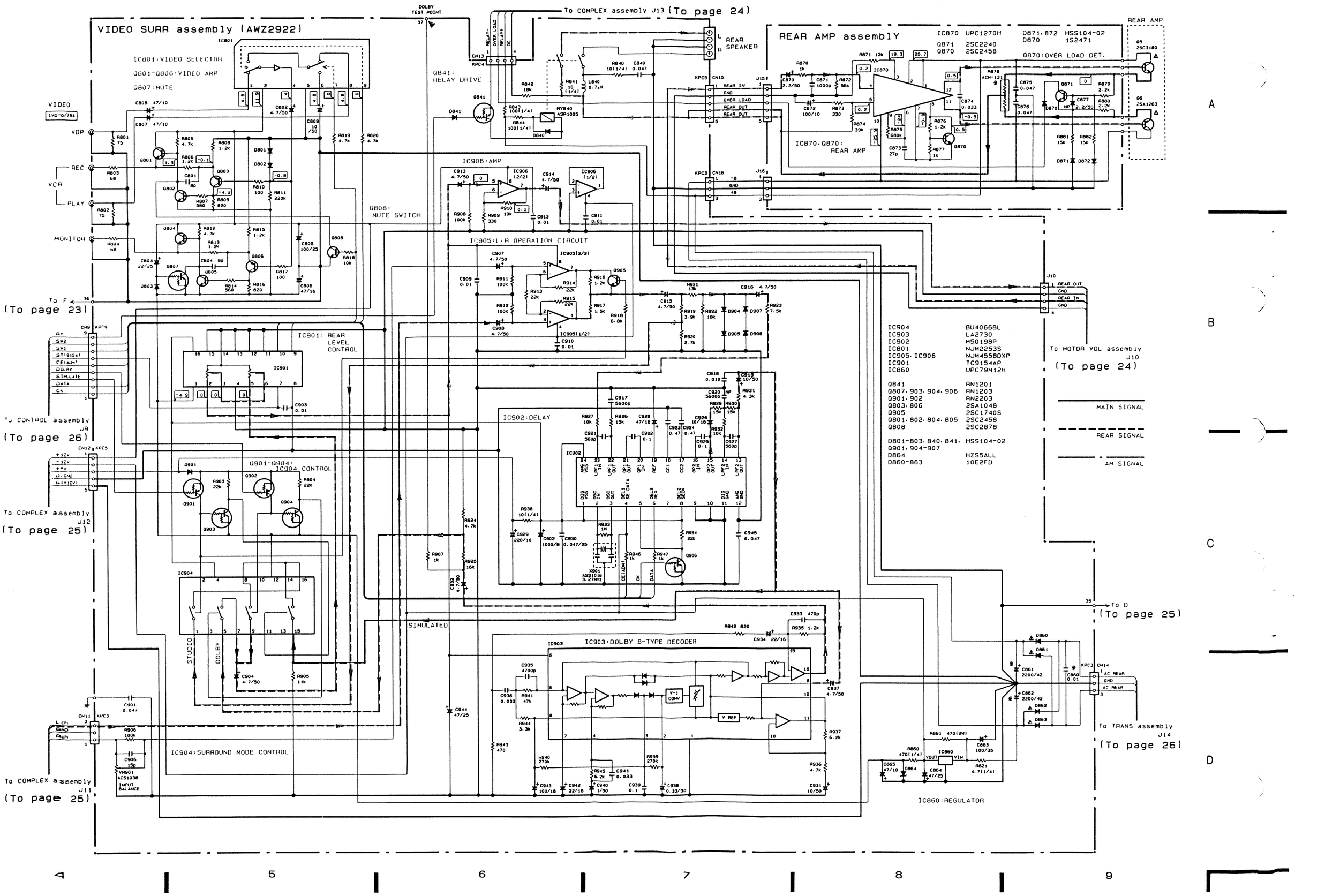


G3



G1




VIDEO SURR assembly (AWZ2922)
IC801:VIDEO SELECTOR
Q801-Q806:VIDEO AMP
Q807:MUTE
VIDEO
1VP-D/75Ω
VDP
REC
VCR
PLAY
MONITOR
To F
(To page 23)
Q808:
MUTE SWITCH
Q841:
RELAY DRIVE
DOLBY
TEST POINT
37
To COMPLEX assembly J13 (To page 24)
REAR
SPEAKER
REAR AMP assembly
IC870 UPC1270H
Q871 2SC2240
Q870 2SC2458
D871,872 HSS104-02
D870 1S2471
Q870:OVER LOAD DET.
IC870,Q870:
REAR AMP
REAR AMP
Q5 2SC3180
Q6 2SA1263
REAR IN
GND
OVER LOAD
REAR OUT
REAR OUT
GND
+B
IC906:AMP
IC905:L.R OPERATION CIRCUIT
IC901: REAR
LEVEL
CONTROL
IC902:DELAY
IC903:DOLBY B-TYPE DECODER
IC904:SURROUND MODE CONTROL
Q901-Q904:
IC904 CONTROL
SIMULATED
STUDIO
DOLBY
To CONTROL assembly
J9
(To page 26)
To COMPLEX assembly
J12
(To page 25)
To COMPLEX assembly
J11
(To page 25)
To MOTOR VOL assembly
J10
(To page 24)
To D
(To page 25)
To TRANS assembly
J14
(To page 26)
IC860:REGULATOR
IC904 BU4066BL
IC903 LA2730
IC902 M50198P
IC801 NJM2253S
IC905,IC906 NJM4558DXP
IC901 TC9154AP
IC860 UPC79M12H
Q841 RN1201
Q807,903,904,906 RN1203
Q901,902 RN2203
Q803,806 2SA1048
Q905 2SC1740S
Q801,802,804,805 2SC2458
Q808 2SC2878
D801-803,840,841, HSS104-02
Q901,904-907
D864 HZS5ALL
D860-863 10E2FD
MAIN SIGNAL
REAR SIGNAL
AM SIGNAL

To TRANS assembly J14
(To page 22)

To CONTROL assembly J9
(To page 19)

To COMPLEX assembly J12 (To page 22)

IC903 IC904 IC906 IC901 IC902 Q906 Q901-Q904 IC860
Q905 IC905 IC801 Q801-Q808 Q841
VR901

ANPI389-A

CN9 RY SW2 SW1 ST(TC9154) CE(ADM) DOLBY SIMULATED DT CK
CN12 +12 +12 +5 GND +12
CN14 AC GND AC
CN13 RY- OVER LOAD RY+ DC
CN16 -B GND -B
CN15 REAR OUT OVER LOAD GND REAR IN
CN11 CH GND R.CH
CN10 GND REAR OUT GND REAR IN

LA2730 DOLBY TEST POINT
BU4066BI
TC9154AP
M50198P
NJM4558 NJM4558 NJM4558
NJM2355
AWZ2992
RY840
VR901
35 GND
36
37

INPUT BAL
VDP
VCR REC
VCR PLAY
MONITOR

VIDEO/SURR ASSEMBLY (AWZ2992)

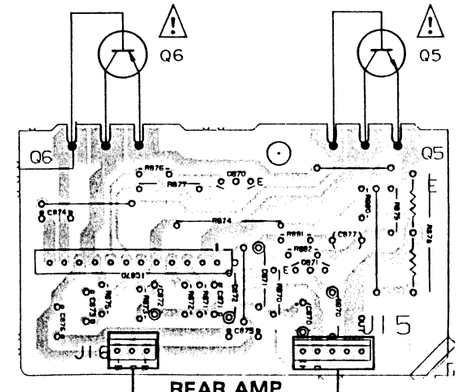
To COMPLEX assembly J11
(To page 21)

To MOTOR VOL assembly J10
(To page 20)

To COMPLEX assembly F
(To page 21)

To COMPLEX assembly J13
(To page 22)

To COMPLEX assembly D
(To page 22)



NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

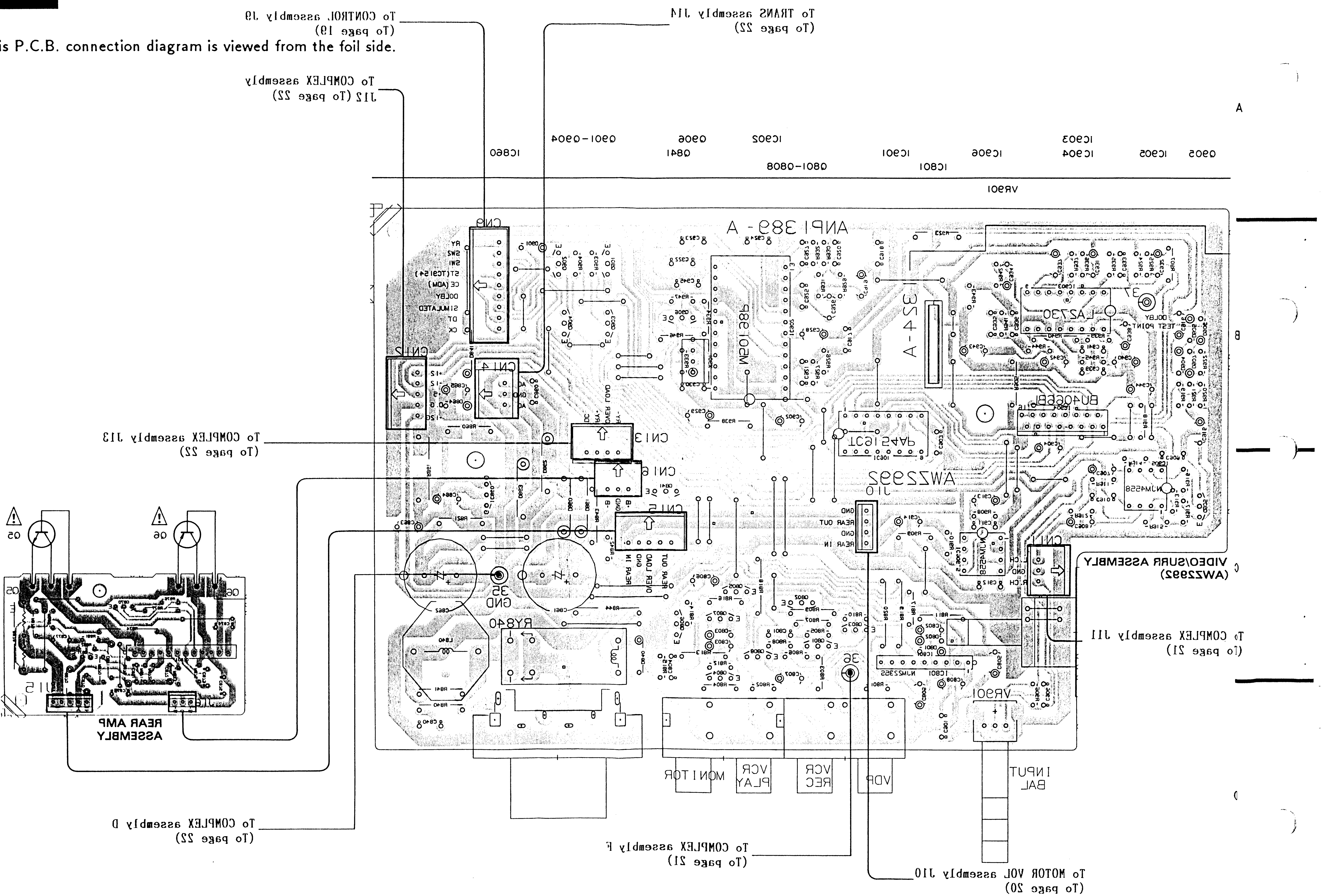
P.C.B pattern diagram indication	Corresponding part symbol	Part Name
Q504 E	E or E	Transistor
Q215	or	Radiator type transistor
D203	D203	Diode
R237	R237	Resistor
C513	+	Capacitor (Polarity)
C518		Capacitor (Non-polarity)

Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capactor terminal marked with ◎(double circles) shows negatine termianl.
4. The diode terminal marked with ◎(double circles) shows cathode side
5. The transistor terminal to which E is affixed shows the emitter.

This P.C.B. connection diagram is viewed from the foil side.


To CONTROL assembly J9
(To page 19)
To TRANS assembly J14
(To page 22)
To COMPLEX assembly J12 (To page 22)
Q901–Q904
Q906
IC902
IC860
Q841
Q801–Q808
IC901
IC801
IC906
IC903
IC904
IC905
Q905
VR901
ANP1389-A
CN9
RY
SW2
SW1
ST(TC9154)
CE(ADM)
DOLBY
SIMULATED
DT
CK
CN12
CN14
M50198P
A-4-32-1
LA2730
DOLBY TEST POINT
37
BU4066BL
TC9154AP
CN13
CN16
CN15
To COMPLEX assembly J13
(To page 22)
AWZ2992
J10
GND
REAR OUT
GND
REAR IN
REAR IN
GND
OVER LOAD
REAR OUT
35
GND
RY840
36
NJM4558
NJM2355
CN11
VIDEO/SURR ASSEMBLY
(AWZ2992)
To COMPLEX assembly J11
(To page 21)
Q5
Q6
J15
REAR AMP ASSEMBLY
MONITOR
VCR PLAY
VCR REC
VDP
INPUT BAL
To COMPLEX assembly D
(To page 22)
To COMPLEX assembly F
(To page 21)
To MOTOR VOL assembly J10
(To page 20)

/SD, /YPW ONLY
To COMPLEX assembly 18
(To page 22)

To VIDEO/SURROUND assembly J10
(To page 11)

DELAY CONT ASSEMBLY (AWX1045)

MOTOR VOL ASSEMBLY

SP SWITCH ASSEMBLY

COMPLEX ASS
(AWZ2987)

CONTROL ASSEMBLY (AWZ2990)

/SD, /YPW CUT

VR311 - VR317

VR302

Q402 Q403

IC401

Q401

IC303
Q301

VR311 VR

2 SERIAL F E MODULE ASSEMBLY
(AXQ1002)

IC304

IC301

/YPW Model ONLY

/SD Model ONLY

To VIDEO/SURROUND assembly CN9
(To page 12)

To VIDEO/SURROUND assembly CN14
(To page 12)

To VIDEO/SURROUND assembly CN13
(To page 11)

PLEX ASSEMBLY
2987)

TRANS ASSEMBLY

POWER TRANSFORMER

/YPW ONLY

125V 4A

To VIDEO/SURROUND assembly 35
(To page 12)

AC POWER CORD
AC120V/60Hz

/SD,/YPW CUT

CAUTION FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACEMENT FUSES SHOULD BE OF THE SAME TYPE AND RATINGS ONLY

ATTENTION POUR LES PRECAUTIONS CONTINUELLES CONTRE L'INCENDIE LES FUSIBLES A REMPLACER DOIVENT ETRE DE MEME TYPES ET NORMES QUE L'EQUIPEMENT.

/KUC,/SD ONLY

/SD,/YPW CUT

AWZ2987

ANPI388-A

I-323-A

VR151

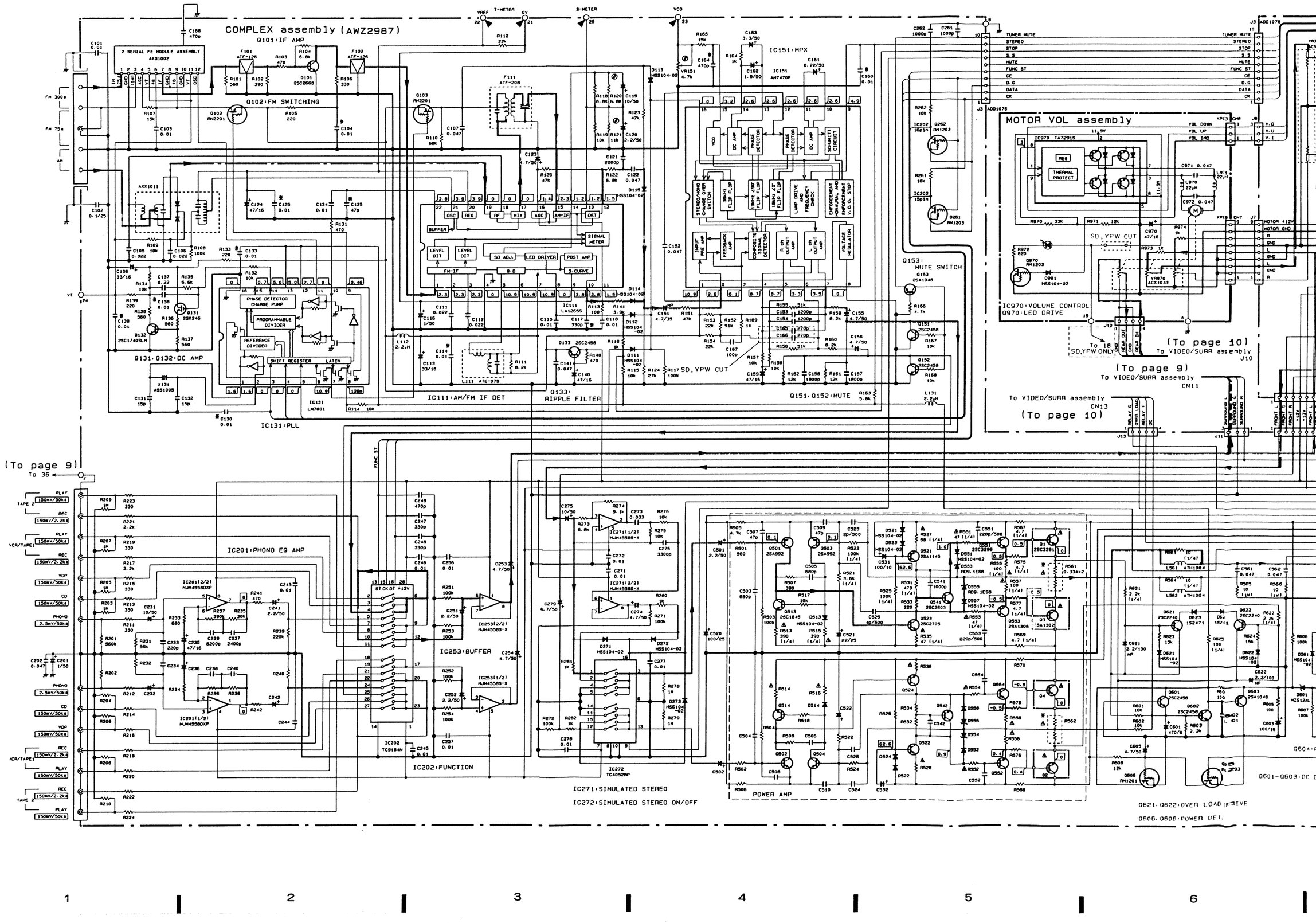
Q133 Q261 Q262 Q153 Q2 Q151 Q552 Q4 Q554 Q542 Q541 Q553 Q3 Q551 Q621 Q622 Q1 IC701
31 Q103 Q132 Q131 IC151 Q152 Q522 Q504 Q502 Q514 Q524 Q513 Q523 Q501 Q503 Q521
Q102 IC111 IC201 IC202 IC253 IC272 IC271 Q601-Q606
Q101 Q752 Q751

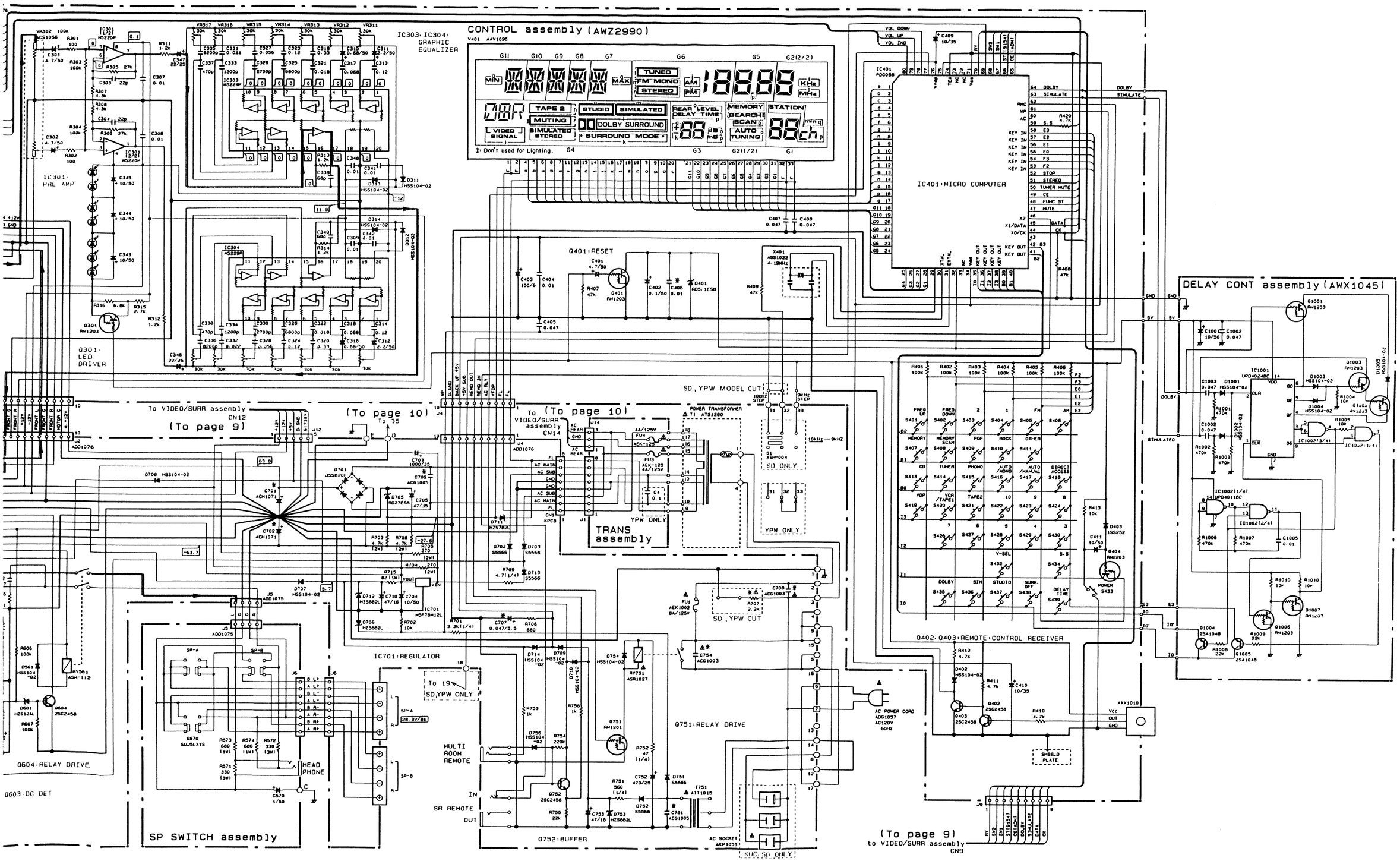
To MOTOR VOL assembly 19
(To page 19)
/SD,/YPW ONLY

To VIDEO/SURROUND assembly 36
(To page 11)

To VIDEO/SURROUND assembly CN11
(To page 11)

To VIDEO/SURROUND assembly CN12
(To page 12)


COMPLEX assembly (AWZ2987)
Q101:IF AMP
Q102:FM SWITCHING
Q131,Q132:DC AMP
IC131:PLL
IC111:AM/FM IF DET
Q133:
RIPPLE FILTER
IC151:MPX
Q151,Q152:MUTE
Q153:
MUTE SWITCH
SD,YPW CUT
MOTOR VOL assembly
IC970:VOLUME CONTROL
Q970:LED DRIVE
(To page 10)
To VIDEO/SUAR assembly
J10
(To page 9)
To VIDEO/SUAR assembly
CN11
To VIDEO/SUAR assembly
CN13
(To page 10)
To 18
SD,YPW ONLY
(To page 9)
To 36
IC201:PHONO EQ AMP
IC253:BUFFER
IC202:FUNCTION
IC271:SIMULATED STEREO
IC272:SIMULATED STEREO ON/OFF
POWER AMP
Q621,Q622:OVER LOAD DRIVE
Q606:POWER DET.
Q601-Q603:DC


CONTROL assembly (AWZ2990)
V401 AAV1096
IC303·IC304: GRAPHIC EQUALIZER
IC301: PRE AMP
Q301: LED DRIVER
IC401: MICRO COMPUTER
IC401 PD6058
Q401: RESET
X401 AS51022 4.19MHz
SD, YPW MODEL CUT
POWER TRANSFORMER T1 AT51280
TRANS assembly
SD ONLY
YPW ONLY
To VIDEO/SUAR assembly CN12
(To page 9)
(To page 10)
To 35
To VIDEO/SUAR assembly CN14
IC701: REGULATOR
SD, YPW CUT
Q751: RELAY DRIVE
Q752: BUFFER
Q604: RELAY DRIVE
Q603: DC DET
SP SWITCH assembly
SP-A
SP-B
HEAD PHONE
MULTI ROOM REMOTE
IN
SR REMOTE
OUT
To 19 SD, YPW ONLY
AC POWER CORD ADG1057 AC120V 60Hz
AC SOCKET AKP1053
KUC, SD ONLY
Q402·Q403: REMOTE CONTROL RECEIVER
AXX1010
SHIELD PLATE
(To page 9) to VIDEO/SUAR assembly CN9
DELAY CONT assembly (AWX1045)
IC1001 UPD4024BC
IC1002(1/4) UPD4011BC
IC1002(2/4)
IC1002(3/4)
IC1002(4/4)
SIMULATED
DOLBY
GND
5V

5. P.C.B 's PARTS LIST

NOTES:

- *Parts without part number cannot be supplied.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560Ω	*56 × 10¹*	*561*	*RD1/4PS 5 6 1 J*
47kΩ	*47 × 10³*	*473*	*RD1/4PS 4 7 3 J*
0.5Ω	*0R5*		*RN2H 0 R 5 K*
1Ω	*010*		*RS1P 0 1 0 K*

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62kΩ	*562 × 10¹*	*5621*	*RN1/4SR 5 6 2 1 F*

Mark	No.	Description	Parts No.
COMPLEX ASSEMBLY (AWZ2987)			
SEMICONDUCTORS			
	IC111	AM/FM IC	LA1265S
	IC131	PLL IC	LM7001
	IC151	MPX IC	AN7470P
	IC201	OP−AMP IC	NJM4558DXP
	IC202	E−SW IC	TC9164N
	IC253	OP−AMP IC	NJM4558S−X
	IC271	OP−AMP IC	NJM4558S−X
	IC272	LOGIC IC	TC4052BP
	IC701	REGULATOR IC	M5F78M12L
	Q101	TRANSISTOR	2SC2668
	Q102,103	TRANSISTOR	RN2201
	Q131	N−FET	2SK246
	Q132	TRANSISTOR	2SC1740SLN
	Q133	TRANSISTOR	2SC2458
	Q151,152	TRANSISTOR	2SC2458
	Q153	TRANSISTOR	2SA1048
	Q261,262	TRANSISTOR	RN1203
	Q501−504	TRANSISTOR	2SA992
	Q513,514	TRANSISTOR	2SC1845
	Q521,522	TRANSISTOR	2SA1145
	Q523,524	TRANSISTOR	2SC2705
	Q541,542	TRANSISTOR	2SC2603
	Q551,552	TRANSISTOR	2SC3298
	Q553,554	TRANSISTOR	2SA1306
	Q601,602	TRANSISTOR	2SC2458
	Q603	TRANSISTOR	2SA1048
	Q604	TRANSISTOR	2SC2458
	Q605	TRANSISTOR	RN1203
	Q606	TRANSISTOR	RN1201
	Q621,622	TRANSISTOR	2SC2240
	Q751	TRANSISTOR	RN1201
	Q752	TRANSISTOR	2SC2458
	D111−115	DIODE	HSS104−02
	D271−273	DIODE	HSS104−02
	D513,514	DIODE	HSS104−02
	D521−524	DIODE	HSS104−02
	D551,552	DIODE	HSS104−02
	D553−556	ZENER DIODE	RD9.1ESB
	D557,558	DIODE	HSS104−02
	D561	DIODE	HSS104−02
	D601	ZENER DIODE	HZS12AL
	D621,622	DIODE	HSS104−02
	D623,624	DIODE	1S2471
	D701	DIODE	D5SB20F
	D702,703	DIODE	S5566
	D705	ZENER DIODE	RD27ESB
	D706	ZENER DIODE	HZS6B2L
	D707−710	DIODE	HSS104−02
	D711	ZENER DIODE	HZS7B2L
	D712	ZENER DIODE	HZS6B2L
	D713	DIODE	S5566
	D714	DIODE	HSS104−02
	D751,752	DIODE	S5566
	D753	ZENER DIODE	HZS6B2L
	D754	DIODE	HSS104−02
	D756	DIODE	HSS104−02
FILTERS			
	F101,102	CERAMIC FILTER	ATF−126
	F111	CERAMIC FILTER	ATF−208
COILS			
	L111	COIL	ATE−079
	L112	AXIAL INDUCTOR	LAU2R2M
	L131	AXIAL INDUCTOR	LAU2R2M
	L561,562	COIL	ATH1004
RELAIES & TRANSFORMER			
	RY561	RELAY	ASR−112
	RY751	RELAY	ASR1027
⚠	T751	POWER TRANSFORMER	ATT1015

Mark	No.	Description	Parts No.
CAPACITORS			
	C101	CERAMIC CAPACITOR (0.01μ)	ACG1021
	C102	CERAMIC CAPACITOR	CKDYX104M25
	C103,104	CERAMIC CAPACITOR	ACG1021
	C105,106	CERAMIC CAPACITOR	CKDYF223Z50
	C107	CERAMIC CAPACITOR	CKDYF473Z50
	C111,112	CERAMIC CAPACITOR	CKDYF223Z50
	C113	ELECTR.CAPACITOR	CEAS330M16
	C114	CERAMIC CAPACITOR	ACG1021
	C115	CERAMIC CAPACITOR	CKDYF103Z50
	C116	ELECTR.CAPACITOR	CEAS010M50
	C117	CERAMIC CAPACITOR (330p)	ACG1018
	C118	CERAMIC CAPACITOR	CKDYF103Z50
	C119	ELECTR.CAPACITOR	CEAS100M50
	C120	ELECTR.CAPACITOR	CEAS2R2M50
	C121	CERAMIC CAPACITOR	CKDYB222K50
	C122	CERAMIC CAPACITOR	CKDYF473Z50
	C123	ELECTR.CAPACITOR	CEAS4R7M50
	C124	ELECTR.CAPACITOR	CEAS470M16
	C125	CERAMIC CAPACITOR	ACG1021
	C130	CERAMIC CAPACITOR	ACG1021
	C131,132	CERAMIC CAPACITOR	CCDCH150J50
	C133	CERAMIC CAPACITOR	ACG1021
	C134	CERAMIC CAPACITOR	CKDYF103Z50
	C135	CERAMIC CAPACITOR (47p)	ACG1016
	C136	ELECTR.CAPACITOR	CEAS330M16
	C137	AUDIO FILM CAPACITOR	CFTXA224J50
	C138,139	CERAMIC CAPACITOR	ACG1021
	C140	ELECTR.CAPACITOR	CEAS470M16
	C141	CERAMIC CAPACITOR	CKDYF473Z50
	C151	ELECTR.CAPACITOR	CEANP4R7M35
	C152	CERAMIC CAPACITOR	CKDYF473Z50
	C153,154	MYLOR FILM CAPACITOR	CQMA122J50
	C155,156	ELECTR.CAPACITOR	CEAS4R7M50
	C157,158	CERAMIC CAPACITOR	CKDYB182K50
	C159	ELECTR.CAPACITOR	CEAS470M16
	C160	CERAMIC CAPACITOR	ACG1021
	C161	ELECTR.CAPACITOR	CEASR22M50
	C162	ELECTROLYTIC CAPACITOR	CEAS1R5M50
	C163	ELECTR.CAPACITOR	CEAS3R3M50
	C164	CAPACITOR (470p)	ACE1039
	C168		CKDYB471K50
	C165,166	CERAMIC CAPACITOR	CCDSL271J50
	C167	CERAMIC CAPACITOR	CCCSL101J50
	C201	ELECTR.CAPACITOR	CEAS010M50
	C202	CERAMIC CAPACITOR	CKDYX473M25
	C231,232	ELECTR.CAPACITOR	CEAS100M50
	C233,234	CERAMIC CAPACITOR	CCCSL221J50
	C235,236	ELECTR.CAPACITOR	CEAS470M16
	C237,238	MYLOR FILM CAPACITOR	CQMA242J50
	C239,240	MYLOR FILM CAPACITOR	CQMA822K50
	C241,242	ELECTR.CAPACITOR	CEAS2R2M50
	C243−246	CERAMIC CAPACITOR	CKDYF103Z50
	C247,248	CERAMIC CAPACITOR	CKCYB331K50
	C249	CERAMIC CAPACITOR	CKCYB471K50
	C251,252	ELECTR.CAPACITOR	CEAS2R2M50
	C253,254	ELECTR.CAPACITOR	CEAS4R7M50
	C256,257	CERAMIC CAPACITOR	CKDYF103Z50
	C261,262	CERAMIC CAPACITOR	CKCYB102K50
	C271,272	CERAMIC CAPACITOR	CKDYF103Z50
	C273	AUDIO FILM CAPACITOR	CFTXA333J50
	C274	ELECTR.CAPACITOR	CEAS4R7M50
	C275	ELECTR.CAPACITOR	CEAS100M50
	C276	MYLOR FILM CAPACITOR	CQMA332J50
	C277,278	CERAMIC CAPACITOR	CKDYF103Z50
	C279	ELECTR.CAPACITOR	CEAS4R7M50
	C501,502	ELECTR.CAPACITOR	CEAS2R2M50
	C503,504	MYLOR FILM CAPACITOR	CQMA381J50
	C505,506	CERAMIC CAPACITOR	CKDYB681K50
	C507−510	CERAMIC CAPACITOR	CCCSL470J50
	C520	ELECTR.CAPACITOR	CEAS101M25
	C521,522	ELECTR.CAPACITOR	CEAS220M25
	C523,524	CERAMIC CAPACITOR	CCCSL020C500
	C525,526	CERAMIC CAPACITOR	CCCSL040C500
	C531,532	ELECTR.CAPACITOR	CEAS101M10
	C541,542	CERAMIC CAPACITOR	CKDYB102K50
	C551−554	CERAMIC CAPACITOR	CCCSL221K500
	C561,562	AUDIO FILM CAPACITOR	CFTXA473J50
	C601	ELECTROLYTIC CAPACITOR	CEAS471M6
	C602	CERAMIC CAPACITOR	CKDYF103Z50
	C603	ELECTR.CAPACITOR	CEAS101M16
	C605	ELECTR.CAPACITOR	CEAS4R7M50
	C621,622	ELECTROLYTIC CAPACITOR	CEANP2R2M100
	C701,702	ELECTROLYTIC CAPACITOR	ACH1071
	C703	ELECTROLYTIC CAPACITOR	CEAS102M35
	C704	ELECTR.CAPACITOR	CEAS100M50
	C705	ELECTROLYTIC CAPACITOR	CEAS470M35
	C707	CEA(47000/5.5V)	ACH1037
⚠	C708	CKA(0.01/AC400V)	ACG1003
	C709	CKA(0.01/AC250V)	ACG1005
	C710	ELECTR.CAPACITOR	CEAS470M16
	C751	CKA(0.01/AC400V)	ACG1005
	C752	ELECTROLYTIC CAPACITOR	CEAS471M25

Mark	No.	Description	Parts No.
	C753	ELECTR.CAPACITOR	CEAS470M16
⚠	C754	CKA(0.01/AC400V)	ACG1003
RESISTORS			
	VR151	VR(4.7K)	ACP1024
⚠	R513−516	FUSLIBLE RESISTOR	RFA1/4PS391J
	R521,522	CARBON FILM RESISTOR	RD1/4PM362J
	R523−526	CARBON FILM RESISTOR	RD1/4PM104J
⚠	R527,528	CARBON FILM RESISTOR	RD1/4PMF680J
	R531,532	CARBON FILM RESISTOR	RD1/4PM471J
⚠	R535,536	FUSLIBLE RESISTOR	RFA1/4PS470J
⚠	R551−554	FUSLIBLE RESISTOR	RFA1/4PS470J
⚠	R555−558	CARBON FILM RESISTOR	RD1/4PMFL101J
⚠	561,562	RESISTOR(0.33,5W)	ACN−139
⚠	R563,564	CARBON FILM RESISTOR	RD1/4PMF100J
⚠	R565,566	METAL OXIDE RESISTOR	RS1PMF100J
⚠	R567−570	FUSLIBLE RESISTOR	RFA1/4PS4R7J
⚠	R575−578	FUSLIBLE RESISTOR	RFA1/4PS4R7J
	R621,622	CARBON FILM RESISTOR	RD1/4PMF222J
	R625	CARBON FILM RESISTOR	RD1/4PMF101J
	R701	CARBON FILM RESISTOR	RD1/4PM332J
	R703	METAL OXIDE RESISTOR	RS2LMF472J
	R704,705	METAL OXIDE RESISTOR	RS2LMF271J
	R707	RESISTOR(2.2M,1/2W)	ACN−209
	R708	METAL OXIDE RESISTOR	RS2LMF472J
	R709	CARBON FILM RESISTOR	RD1/4PMFL4R7J
	R715	METAL OXIDE RESISTOR	RS1PMF820J
	R751	CARBON FILM RESISTOR	RD1/2PM561J
	R752	CARBON FILM RESISTOR	RD1/2PM470J
		Other resistors	RD1/8PM□□□J
OTHERS			
		ANTENNA TERMINAL 4−P	AKA1009
		PHONO JACK 4−P	AKB1101
		PHONO JACK 6−P	AKB1121
		SPEAKER TERMINAL 8−P	AKE−111
		JACK 2−P	AKN1006
		JACK	AKN1020
*		2 SERIAL FE MODULE	AXQ1002
		AM RF TUNING BLOCK	AXX1011
	CN1	JUMPER CONNECTOR	KPC8
	X131	CRYSTAL RESONATOR	ASS1005

* Component parts of 2 Serial FE module(AXQ1002) are not supplied in service

SP SWITCH ASSEMBLY

SWITCH

S570	PUSH SWITCH	SUJ5LXYS

CAPACITOR

C570	ELECTR.CAPACITOR	CEAS010M50

RESISTORS

⚠	R571,572	METAL OXIDE RESISTOR	RS3LMF331J
⚠	R573,574	METAL OXIDE RESISTOR	RS1LMF681J

OTHER

	JACK	AKN1002

REAR AMP ASSEMBLY

SEMICONDUCTORS

IC870	PREDRIVER−IC	UPC1270H
Q870	TRANSISTOR	2SC2458
Q871	TRANSISTOR	2SC2240
D870	DIODE	1S2471
D871,872	DIOCE	HSS104−02

CAPACITORS

C870	ELECTR.CAPACITOR	CEAS2R2M50
C871	CERAMIC CAPACITOR	CKDYB102K50
C872	ELECTROLYTIC CAPACITOR	CEHAQ101M10
C873	CERAMIC CAPACITOR	CCCSL270J50
C874	MYLOR FILM CAPACITOR	CQMA333J50
C875,876	CERAMIC CAPACITOR	CKDYF473Z50
C877	ELECTR.CAPACITOR	CEANP2R2M50

RESISTORS

R878	RESISTOR(0.22,2W)	ACN−131
	Other resistors	RD1/8PM□□□J

Mark	No.	Description	Parts No.
CONTROL ASSEMBLY (AWZ2990)			
SEMICONDUCTORS			
	IC301	OP−AMP IC	M5220P
	IC303,304	AUDIO IC	M5229P
	IC401	AMP CONTROL UCOM	PDG058
	Q301	TRANSISTOR	RN1203
	Q401	TRANSISTOR	RN1203
	Q402,403	TRANSISTOR	2SC2458
	Q404		RN2203
	D311−314	DIODE	HSS104−02
	D401	ZENER DIODE	RD5.1ESB
	D402	DIODE	HSS104−02
	D403		1SS252
SWITCHES			
	S401−411	SWITCH	ASG1034
	S413−424	SWITCH	ASG1034
	S426−430	SWITCH	ASG1034
	S432−439	SWITCH	ASG1034
CAPACITORS			
	C301,302	ELECTR.CAPACITOR	CEAS4R7M50
	C303,304	CERAMIC CAPACITOR	CCCSL220J50
	C307−309	CERAMIC CAPACITOR	CKDYF103Z50
	C311,312	ELECTR.CAPACITOR	CEJA2R2M50
	C313,314	AUDIO FILM CAPACITOR	CFTXA124J50
	C315,316	ELECTROLYTIC CAPACITOR	CEJAR68M50
	C317,318	AUDIO FILM CAPACITOR	CFTXA683J50
	C319,320	AUDIO FILM CAPACITOR	CFTXA334J50
	C321,322	AUDIO FILM CAPACITOR	CFTXA183J50
	C323,324	AUDIO FILM CAPACITOR	CFTXA124J50
	C325,326	MYLOR FILM CAPACITOR	CQMA682K50
	C327,328	AUDIO FILM CAPACITOR	CFTXA563J50
	C329,330	MYLOR FILM CAPACITOR	CQMA272J50
	C331,332	AUDIO FILM CAPACITOR	CFTXA223J50
	C333,334	MYLOR FILM CAPACITOR	CQMA122J50
	C335,336	MYLOR FILM CAPACITOR	CQMA822K50
	C337,338	MYLOR FILM CAPACITOR	CQMA471K50
	C339,340	CERAMIC CAPACITOR	CCDSL680J50
	C341,342	CERAMIC CAPACITOR	CKDYF103Z50
	C343−345	ELECTR.CAPACITOR	CEAS100M50
	C346,347	ELECTR.CAPACITOR	CEAS220M25
	C348	CERAMIC CAPACITOR	CKDYF103Z50
	C401	ELECTROLYTIC CAPACITOR	CEJA4R7M50
	C402	ELECTROLYTIC CAPACITOR	CEJA0R1M50
	C403	ELECTR.CAPACITOR	CEJA101M6
	C404	CERAMIC CAPACITOR	CKDYF103Z50
	C405	CERAMIC CAPACITOR	CKDYF473Z50
	C406	CERAMIC CAPACITOR	ACG10021
	C407,408	CERAMIC CAPACITOR	CKDYF473Z50
	C409,410	ELECTROLYTIC CAPACITOR	CEJA100M35
	C411		CEAS100M50
RESISTORS			
	VR302	VARIABLE RESISTOR	ACS1056
	VR311−317	VR	ACU1023
		Other resistors	RD1/8PM□□□J
OTHERS			
	X401	CERAMIC OSCILLATOR	ASS1022
	V401	FL TUBE	AAV1096
		FL SPACER	AEB1120
		REMOTE RECEIVER UNIT	AXX1010

TRANS ASSEMBLY

No parts are supplied with the TRANS ASSEMBLY

VIDEO/SURR ASSEMBLY (AWZ2992)

SEMICONDUCTORS

	IC801	E−SW IC	NJM2235S
	IC860	REGULATOR IC	UPC79M12H
	IC901	E−VR IC	TC9154AP
	IC902	IC	M50198P
	IC903	DOLBY−B IC	LA2730
	IC904	LOGIC IC	BU4066BL
	IC905,906	OP−AMP IC	NJM4558DXP
	Q801,802	TRANSISTOR	2SC2458
	Q803	TRANSISTOR	2SA1048
	Q804,805	TRANSISTOR	2SC2458
	Q806	TRANSISTOR	2SA1048
	Q807	TRANSISTOR	RN1203
	Q808	TRANSISTOR	2SC2878
	Q841	TRANSISTOR	RN1201
	Q901,902	TRANSISTOR	RN2203
	Q903,904	TRANSISTOR	RN1203
	Q905	TRANSISTOR	2SC1740S
	Q906	TRANSISTOR	RN1203

Mark	No.	Description	Parts No.
	D801−803	DIODE	HSS104−02
	D840,841	DIODE	HSS104−02
	D860−863	DIODE	10E2FD
	D864	ZENER DIODE	HZS5ALL
	D901	DIODE	HSS104−02
	D904−907	DIODE	HSS104−02
COIL			
	L840	COIL	ATH1004
RELAY			
	RY840	RELAY	ASR1005
CAPACITORS			
	C801	CERAMIC CAPACITOR	CCCSL080D50
	C802	ELECTR.CAPACITOR	CEAS4R7M50
	C803	ELECTR.CAPACITOR	CEAS220M25
	C804	CERAMIC CAPACITOR	CCCSL080D50
	C805	ELECTR.CAPACITOR	CEAS101M25
	C806	ELECTR.CAPACITOR	CEAS470M16
	C807,808	ELECTR.CAPACITOR	CEAS470M10
	C809	ELECTR.CAPACITOR	CEAS100M50
	C840	MYLOR FILM CAPACITOR	CQMA473J50
	C860	CKA(0.01/AC250V)	ACG1005
	C861,862	ELECTROLYTIC CAPACITOR (2200/42v)	ACH1109
	C863	ELECTR.CAPACITOR	CEAS101M35
	C864	ELECTR.CAPACITOR	CEAS470M25
	C865	ELECTR.CAPACITOR	CEAS470M10
	C901	CERAMIC CAPACITOR	CKDYF473Z50
	C902	ELECTROLYTIC CAPACITOR	CEAS102M6
	C903	CERAMIC CAPACITOR	CKCYF473Z50
	C904	ELECTROLYTIC CAPACITOR	CEAS4R7M50
	C906	CERAMIC CAPACITOR	CCCSL150J50
	C907,908	ELECTR.CAPACITOR	CEAS4R7M50
	C909−912	CERAMIC CAPACITOR	CKDYF103Z50
	C913−916	ELECTR.CAPACITOR	CEAS4R7M50
	C917	MYLOR FILM CAPACITOR	CQMA562K50
	C918	MYLOR FILM CAPACITOR	CQMA123K50
	C919	ELECTR.CAPACITOR	CEAS100M50
	C920	MYLOR FILM CAPACITOR	CQMA562K50
	C921	MYLOR FILM CAPACITOR	CQMA561K50
	C922	AUDIO FILM CAPACITOR	CFTXA104J50
	C923,924	AUDIO FILM CAPACITOR	CFTXA474J50
	C925	AUDIO FILM CAPACITOR	CFTXA104J50
	C926	ELECTR.CAPACITOR	CEANP100M16
	C927	MYLOR FILM CAPACITOR	CQMA561K50
	C928	ELECTR.CAPACITOR	CEAS470M16
	C929	ELECTR.CAPACITOR	CEAS221M10
	C930	CERAMIC CAPACITOR	CKDYX473M25
	C931	ELECTR.CAPACITOR	CEAS100M50
	C932	ELECTR.CAPACITOR	CEAS4R7M16
	C933	CERAMIC CAPACITOR	CKDYB471K50
	C934	ELECTR.CAPACITOR	CEAS220M16
	C935	MYLOR FILM CAPACITOR	CQMA472J50
	C936	AUDIO FILM CAPACITOR	CFTXA333J50
	C937	ELECTR.CAPACITOR	CEAS4R7M50
	C938	ELECTR.CAPACITOR	CEASR33M50
	C939	AUDIO FILM CAPACITOR	CFTXA104J50
	C940	ELECTR.CAPACITOR	CEAS010M50
	C941	AUDIO FILM CAPACITOR	CFTXA333J50
	C942	ELECTR.CAPACITOR	CEAS220M16
	C943	ELECTR.CAPACITOR	CEAS101M16
	C944	ELECTR.CAPACITOR	CEAS470M25
	C945	CERAMIC CAPACITOR	CKCYF473Z50
RESISTORS			
	VR901	VARIABLE RESISTOR	ACS1038
	R821	CARBON FILM RESISTOR	RD1/4PMFL4R7J
	R840,841	CARBON FILM RESISTOR	RD1/4PMF100J
	R843,844	CARBON FILM RESISTOR	RD1/4PMF101J
	R860	CARBON FILM RESISTOR	RD1/4PMF471J
	R861	METAL OXIDE RESISTOR	RS2LMF471J
	R938	CARBON FILM RESISTOR	RD1/4PMF100J
		Other resistors	RD1/8PM□□□J
OTHERS			
	X901	CERAMIC OSCILLATOR	ASS1016
	CN11	JUMPER CONNECTOR 3−P	KPC3
	CN12	JUMPER CONNECTOR 5−P	KPC5
	CN13	JUMPER CONNECTOR 4−P	KPC4
	CN14	JUMPER CONNECTOR 3−P	KPC3
	CN15	JUMPER CONNECTOR 5−P	KPC5
	CN16	JUMPER CONNECTOR 3−P	KPC3

Mark	No.	Description	Parts No.
	CN9	JUMPER CONNECTOR 9-P	KPC9
		PHONO JACK 2-P	AKB1118
		PHONO JACK 2-P	AKB1134
		SPEAKER TERMINAL 4-P	AKE1012

MOTOR VOL ASSEMBLY

SEMICONDUCTORS

	IC970		TA7291S
	Q970	TRANSISTOR	RN1203
	D991	DIODE	HSS104-02

COILS

	L971,972	AXIAL INDUCTOR	LAU220K

CAPACITOR

	C970	ELECTR.CAPACITOR	CEAS470M16
	C971,972	CERAMIC CAPACITOR	CKDYF473Z50

RESISTORS

	VR970	VARIABLE RESISTOR	ACX1033
		Other resistors	RD1/8PM□□□J

OTHERS

	CN7	JUMPER CONNECTOR 9-P	KPC9
	CN8	JUMPER CONNECTOR 3-P	KPC3

DELAY CONT ASSEMBLY (AWX1045)

SEMICONDUCTORS

	IC1001	TC4024BP
	IC1002	UPD4011BC
	Q1001,1002, 1006,1007	RN1203
	Q1003	RN2203
	Q1004,1005	2SA1048
	D1001-1005	HSS104-02

CAPACITORS

	C1001	CEAS100M50
	C1002-1004	CKDYX473M16
	C1005	CQMA103J50

RESISTORS

	R1001-1011	RD1/8PM□□□J

• DOLBY SURROUND:

Choose this setting for movies and music (especially Video Discs and video tapes bearing the DOLBY SURROUND mark) playback. Dolby Surround decodes the surround information in the source signal, providing a feeling of left-right and front -back movement matching the action on screen.

Manufactured under license from Dolby Laboratories Licensing Corporation. Additionally licensed under one or more of the following patents: U.S. numbers 3,632,886, 3,746,792 and 3,959,590; CANADA numbers 1,004,603 and 1,037,877. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

Manufacturé sous licence de Dolby Laboratories Licensing Corporation. En outre, sous license d'un ou plusiers des brevets suivants: numéros américains 3,632,886, 3,746,792 et 3,959,590; numéros canadiens 1,004,603 et 1,037,877. Le terme "Dolby" et le symbole Double-D sont des marques dépsoées de Dolby Laboratories Licensing Corporation.

When using DOLBY SURROUND, a delay time setting of 20 ms is usually appropriate.
If your rear speakers are very close to the listening position, try 25 ms or 30 ms; if they are some distance away try 15 ms.
Adjustment of input balance is required to obtain the correct DOLBY SURROUND effect. For the adjustment procedure, refer to "DOLBY SURROUND INPUT BALANCE ADJUSTMENT PROCEDURE"

6. ADJUSTMENTS

6.1 ADJUSTMENT OF THE FM TUNER SECTION

- Set the mode selector to FM BAND.
- Connect the wiring as shown in the Fig.6–2

Step No.	Adjustment title	FM SG (1kHz ± 75kHz dev.)		Reception frequency display	Adjustment location	Specifications
		Frequency (MHz)	Level (dB μ V)			
1	Center adjustment	98.0	60	98.0 MHz	L111	Adjust so that the DC voltage between the TP–21 and TP–22 becomes 0V ± 50mV.
2	VCO adjustment	Non-modulation	60	98.0 MHz	VR151	Adjust so that the output of the TP–23 becomes 76kHz ± 0.5kHz.
3	TUNED IND. Lighting level	98.0 *1 (Stereo modulation)	—	98.0MHz	R121	The R121 of the COMPLEX assembly has been mounted or removed at the time of adjustment in the production. Mount or remove R121 referring to the table below, and adjust it so that the indicators of TUNED start to light up at 24 dBμV (±15dB).
4	MPX DISTORTION adjustment	98.0*1 (L or R only)	60	98.0MHz	Output coil of front mode	Adjust the core with ±1/4 rotation to less than 1.5% from the highest sensitivity.

Input level	R121
The indicators of TUNED start lighting up at a larger input than 39 dBμV.	Remove
The indicators of TUNED start lighting up at less input than 9 dBμV.	Mount

*1 Stereo modulation : Main 1 kHz L+R ± 68.25 kHz dev.
Pilot 19 kHz ± 6.75 kHz dev.

6.2 ADJUSTMENT OF THE MW TUNER SECTION

- Set the mode selector to MW BAND.
- Connect the wiring as shown in the Fig.6–2
- **The values in ( ) are values of 10 kHz steps.**

Step No.	Adjustment title	AM SG (400Hz 30%MOD)		Reception frequency display	Adjustment location	Specifications
		Frequency (kHz)	Level (dB μ V)			
1	TUNED IND. Lighting level	999 (1000)	—	999kHz (1000kHz)	R120	The R120 of the COMPLEX assembly has been mounted or removed at the time of adjustment in the production. Mount or remove R120 referring to the table below, and adjust it so that the indicators of TUNED start to light up at less input than 65 dBμV

Input level	R120
The indicators of TUNED start linghting up a larger input than 65dBμV.	Remove

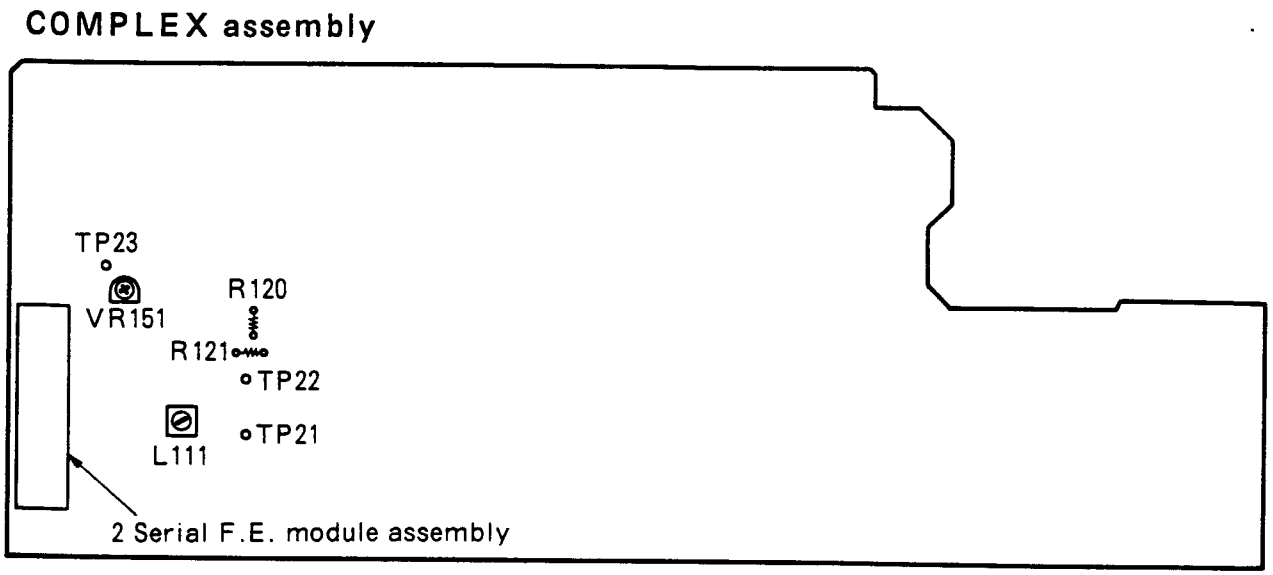


Fig. 6−1 adjustment point

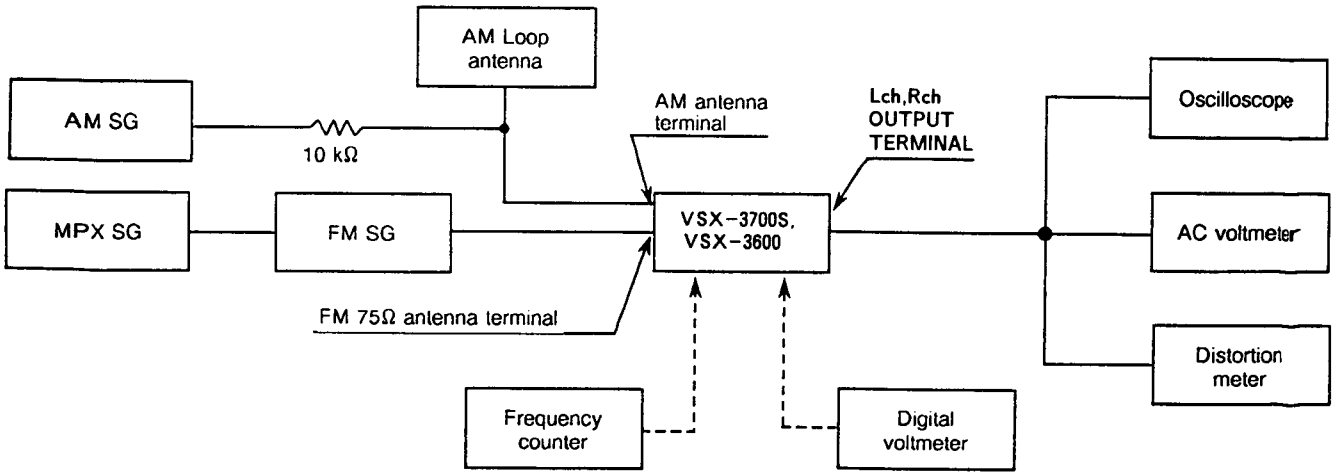


Fig. 6−2 MW and FM adjustment wiring diagram

7. IC INFORMATION

SYSTEM CONTROL MICRO COMPUTER (PDG058)

•Terminal function

No.	Terminal Name	I/O	Terminal function
1	a	DP	FL segment output (a)
2	b	DP	FL segment output (b)
3	c	DP	FL segment output (c)
4	d	DP	FL segment output (d)
5	e	DP	FL segment output (e)
6	f	DP	FL segment output (f)
7	g	DP	FL segment output (g)
8	h	DP	FL segment output (h)
9	i	DP	FL segment output (i)
10	j	DP	FL segment output (j)
11	k	DP	FL segment output (k)
12	l	DP	FL segment output (l)
13	m	DP	FL segment output (m)
14	n	DP	FL segment output (n)
15	o	DP	FL segment output (o)
16	p	DP	FL segment output (p)
17	q	DP	FL segment output (q)
18	G11	DP	FL grid output (G11)
19	G10	DP	FL grid output (G10)
20	G9	DP	FL grid output (G9)
21	G8	DP	FL grid output (G8)
22	G7	DP	FL grid output (G7)
23	G6	DP	FL grid output (G6)

No.	Terminal Name	I/O	Terminal function
24	G5	DP	FL grid output (G5)
25	G4	DP	FL grid output (G4)
26	G3	DP	FL grid output (G3)
27	G2	DP	FL grid output (G2)
28	G1	DP	FL grid output (G1)
29	9k/10k	I	Channel step frequency 9kHz (H)/10kHz (L) switching
30	XTAL	O	Connected to the 4.19MHz ceramic resonator
31	EXTAL	O	
32	$\overline{\text{RST}}$	I/O	RESET input
33	N.C.	–	Not connect
34	Vdd	5V	Connected to +5V supply voltage
35	KEY OUT	O	KEY MATRIX output
36	KEY OUT	O	KEY MATRIX output
37	KEY OUT	O	KEY MATRIX output
38	KEY OUT	O	KEY MATRIX output
39	KEY OUT	O	KEY MATRIX output
40	KEY OUT	O	KEY MATRIX output
41	KEY OUT	O	KEY MATRIX output
42	KEY OUT	O	KEY MATRIX output
43	N.C.	–	Not connect
44	X0/CK	O	SERIAL (FUNCTION/PLL CLOCK output
		I	Destination 91' model (H)/9\' model (L) switching

No.	Terminal Name	I/O	Terminal function
45	X1/DATA	O	SERIAL (FUNCTION/PLL) DATA output
		I	Not used as input port
46	X2	I	Destination VSX (H)/ASX (L) switching
47	MUTE	O	MUTING ON (L)/OFF (H) output
48	FUNC ST	O	FUNCTION STB output
49	CE	O	PLL CE output
50	TUNER MUTE	O	TUNER MUTE output
51	STEREO	O	STEREO signal input
52	STOP	O	STOP signal input
53	KEY IN	O	KEY MATRIX input
54	KEY IN	O	KEY MATRIX input
55	KEY IN	O	KEY MATRIX input
56	KEY IN	O	KEY MATRIX input
57	KEY IN	O	KEY MATRIX input
58	KEY IN	O	KEY MATRIX input
59	S.S	O	SIMULATED STEREO ON (L)/OFF (H) output
60	N.C.	O	Not used (OPEN)
61	WP	I	WAKE UP input
62	RMC	I	REMOCON input
63	SIMU-LATE	O	SIMULATED SURROUND output
64	DOLBY	O	DOLBY SURROUND output
65	CE (ADM)	O	DELAY CE output
66	ST (9154)	O	REAR LEVEL STB output

No.	Terminal Name	I/O	Terminal function
67	SW1	O	VIDEO input VDP (L)/VCR (H) switching output
68	SW2	O	VIDEO MUTE output
69	DIMMER	O	SLEEP DIMMER output
70	RY	O	REAR POWER RELAY output
71	Vss	–	GND
72	N.C.	O	Not used (OPEN)
73	N.C.	–	Not connect
74	TEX	I	Not used (Connected to GND)
75	Vref	I	Connected to VDD
76	Vfdp	I	−24V negative input voltage for FDP
77	AC RELAY	N	AC RELAY output
78	VOL DOWN	N	VOLUME DOWN output (electrically acitivated)
79	VOL UP	N	VOLUME UP output (electrically acitivated)
80	VOL IND	N	VOLME indicator light (H)/light off (L)

I : CMOS input
O : CMOS output
N : Nch open drain output
P : Pch open drain output
UN : Nch open drain output with pull−up resistor
DP : Pch open drain output with pull−down resistor
UI : CMOS input with pull−up resistor
DI : CMOS input with pull−down resistor

8.4 P.C.BOARD PATTERN

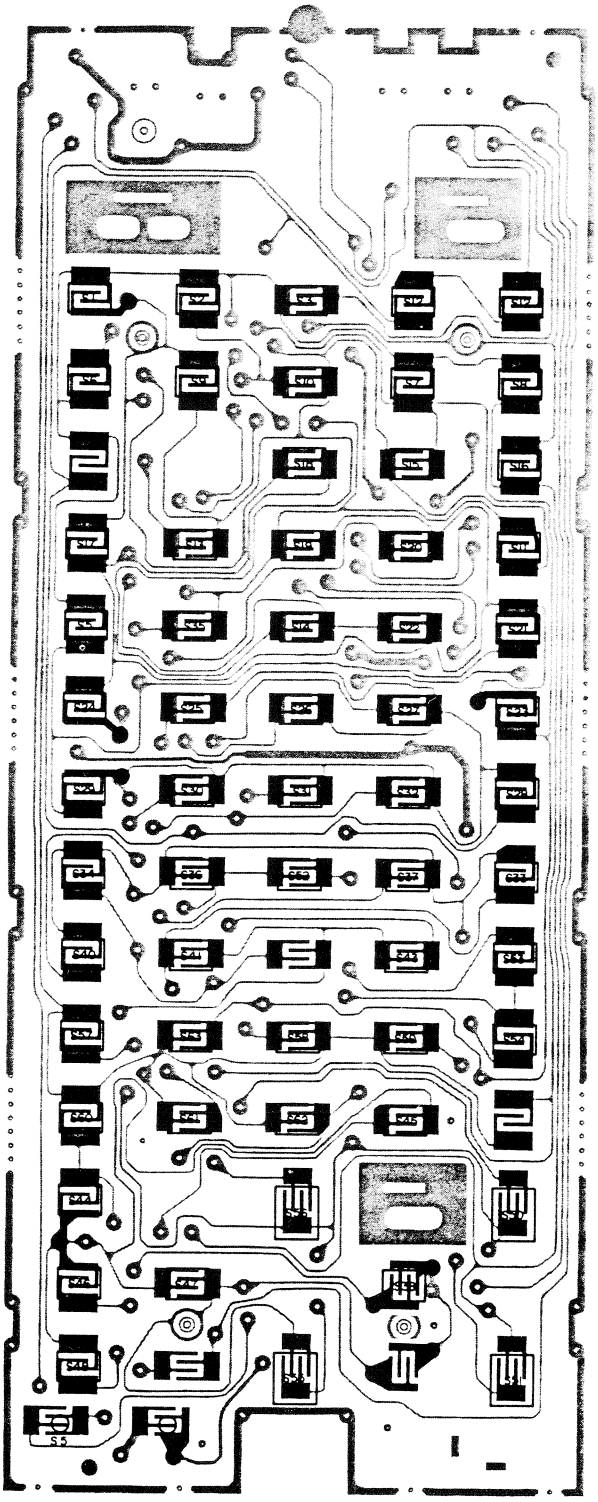
NOTE :

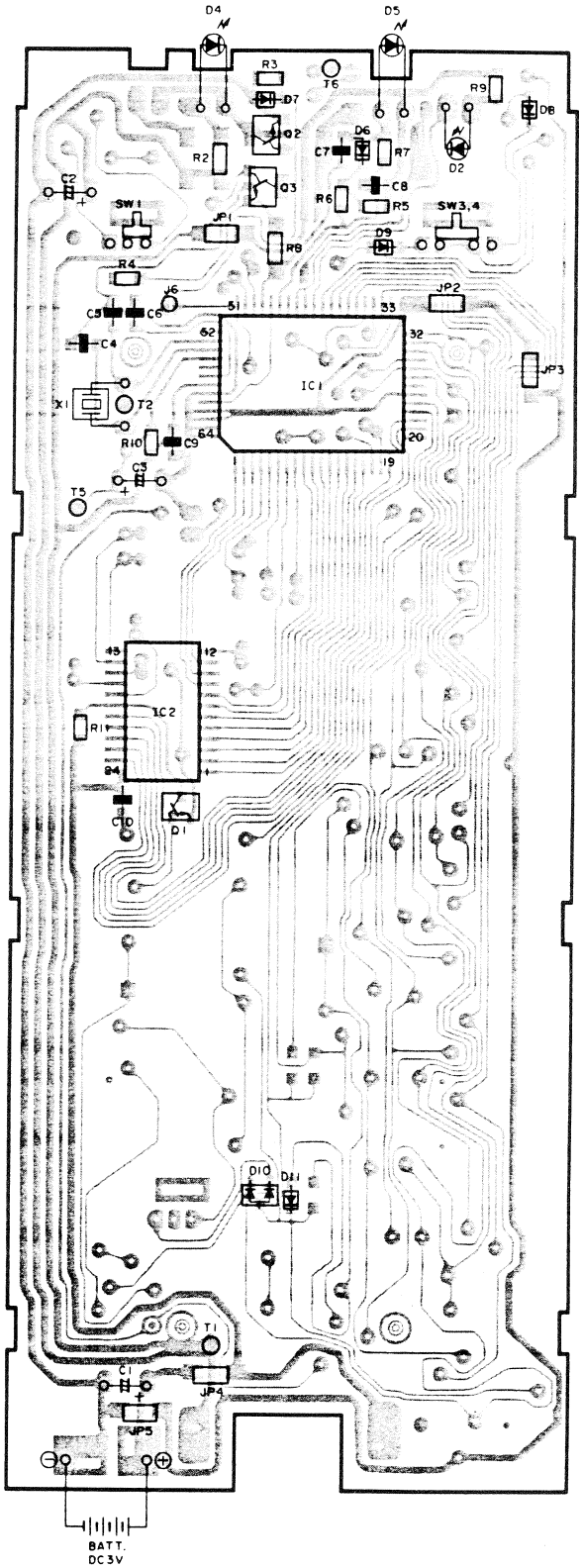
: Indicates a chip resistor.

: Indicates a chip capacitor.

: Indicates a chip transistor.

: Indicates a chip diode.





9. FOR VSX−3600/KUC, SD AND YPW TYPES

9.1 CONTRAST OF MISCELLANEOUS PARTS

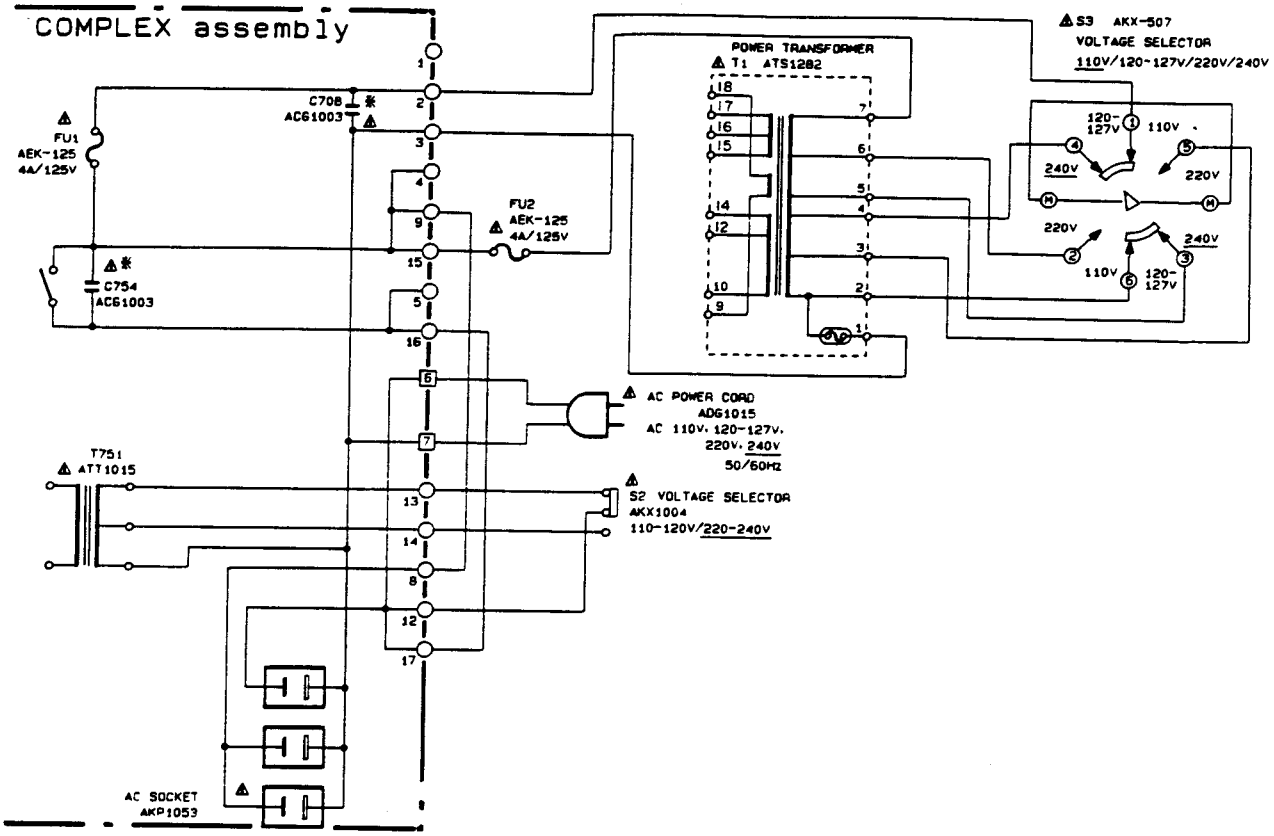
NOTES:

- *Parts without part number cannot be supplied.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

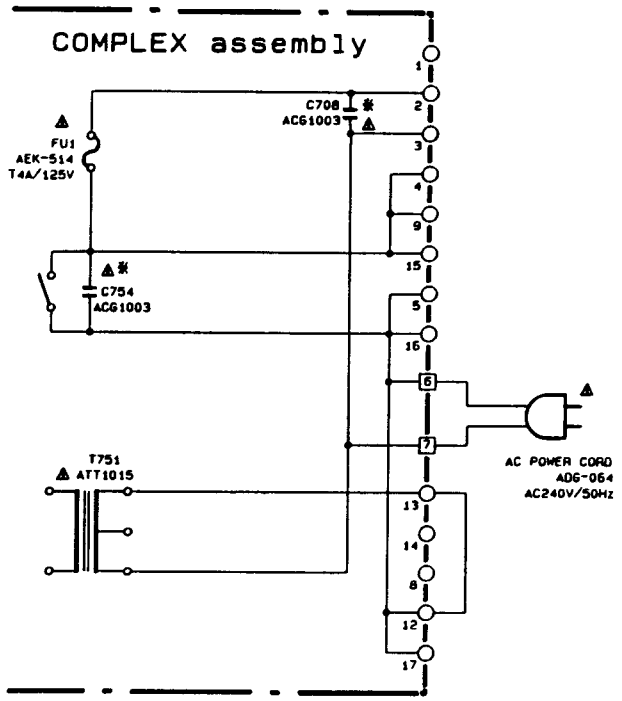
The VSX−3600/KUC, SD and YPW types are the same as the VSX−3700S/KUC type with the exception of the following sections.

Mark	Symbol & Description	Part No.				Remarks
		VSX−3700S/ KUC type	VSX−3600/ KUC type	VSX−3600/ SD type	VSX−3600/ YPW type	
⚠	S1 Slide switch (9k/10k)	.....	.....	ASH−004	.....	
⚠	S2 Line voltage selector switch (AC110V−127V/220V−240V)	.....	.....	AKX1004	.....	
⚠	S3 Slide switch (AC110V/120V−127V/220V/240V)	.....	.....	AKX−507	.....	
⚠	T1 Power transformer	ATS1280	ATS1280	ATS1282	ATS1281	
⚠	FU1 Fuse (8A/125V)	AEK1002	AEK1002	.....	.....	
⚠	FU1 Fuse (4A/125V)	.....	.....	AEK−125	.....	
⚠	FU1 Fuse (T4A/125V)	.....	.....	.....	AEK−614	
⚠	FU2 Fuse (4A/125V)	.....	.....	AEK−125	.....	
⚠	FU3,FU4 Fuse (4A/125V)	AEK−125	AEK−125	AEK−125	.....	
⚠	FU3,FU4 Fuse (T4A/125V)	.....	.....	.....	AEK−514	
⚠	Fuse holder	.....	.....	AKR−038	.....	
	C4	.....	.....	.....	CQMXA104J100	
⚠	AC socket (3P OUTLET)	AKP1053	AKP1053	AKP1053	.....	
⚠	AC Power cord	ADG1057	ADG1057	ADG1015	ADG−064	
	Front panel	AMB1661	AMB1662	AMB1662	AMB1662	
	Screw	.....	.....	BMZ26P040FCU	.....	For S1
	Packing case	AHD1889	AHD1890	AHD1890	AHD1890	
	Operating Instructions (Spanish)	.....	.....	ARC1224	.....	
	Remote control unit	AXD1160	AXD1152	AXD1152	AXD1152	

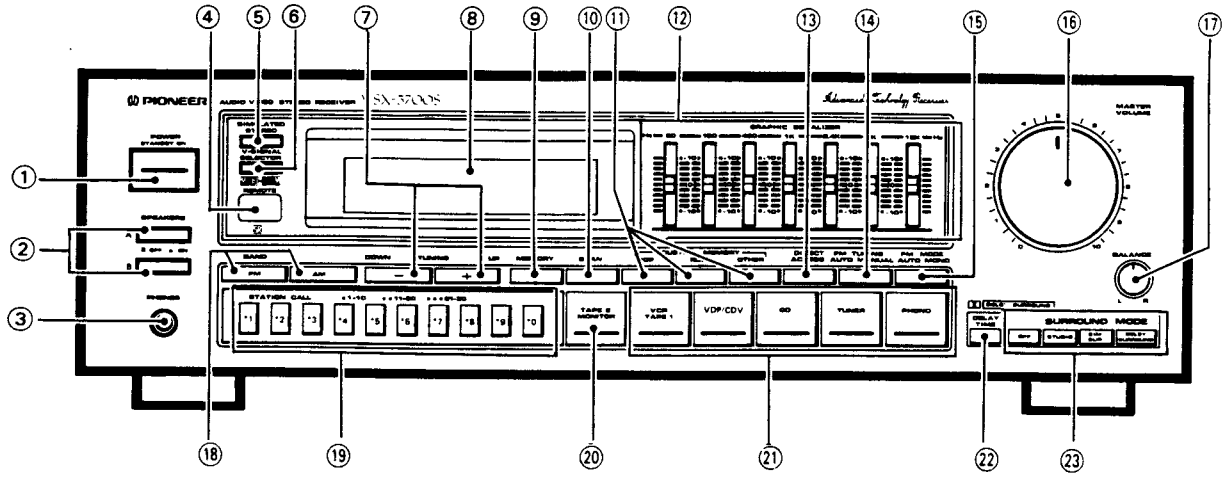
9.2 SCHEMATIC DIAGRAM (SD TYPE)



9.3 SCHEMATIC DIAGRAM (YPW TYPE)



10. PANEL FACILITIES



① POWER (STANDBY/ON) switch

This is the switch for electric power.

ON: When set to the ON position, power is supplied and the unit becomes operational.

STANDBY: When set to the STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness.

On the Australian and Multi-voltage models, the indicator above the MASTER VOLUME control knob lights during STANDBY.

- The accessory remote control unit can also be used to operate STANDBY/ON function of this switch.
- When not using the unit for a long period, disconnect the power cord.

[TIMER ON/OFF possible]

When the unit is switched ON, ON/OFF can be performed with the optional timer.

NOTE:

When the power is initially turned ON, muting will be applied to prevent sound from being output for about 5 seconds.

② SPEAKERS switches (▮OFF, ▬ON)

These are used to select the speaker through which you wish to listen.

A: When the speakers connected to A terminals are in use.

B: When the speakers connected to B terminals are in use.

- Turn both A and B speakers to OFF position when only the HEADPHONES are in use.

NOTE:

No sound will be heard through the speakers when both A and B switches are pressed if only one set of speakers has been connected to either A or B SPEAKERS terminals.

③ PHONES jack

Connect the plug on your headphones to this jack. To listen to a program through the headphones, set both SPEAKERS A and B switches to the OFF position.

④ Remote sensor window

⑤ SIMULATED STEREO switch

This turns monaural signals into simulated stereo sound. Use this when you wish to experience a sense of stereo presence with AM broadcasts, VCR or other monaural signal sources.

NOTE:

This function can also be used with stereo sources, but it will result in a different sound from the normal stereo sound.

⑥ V (Video) SIGNAL SELECTOR switch

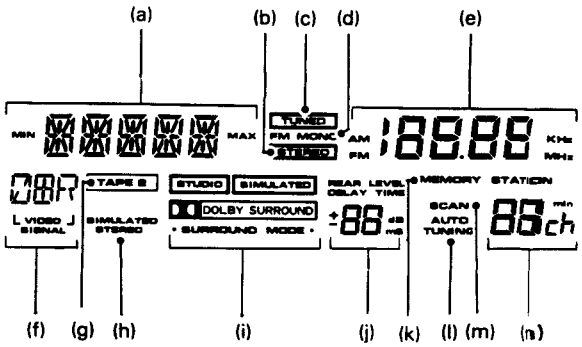
This lets you switch the video signal without switching the audio signal. This means that you can, for example, listen to a CD while watching a video disc.

⑦ TUNING switches (DOWN –, UP +)

UP: The FM or AM band is scanned in the direction of increasing frequency.

DOWN: The opposite operation to that of the UP switch takes place.

⑧ Operation display panel



(a) Displays function and custom memory name, as well as surround and rear level.

(b) STEREO indicator
Lights when a stereo FM broadcast is being received.

(c) TUNED indicator
Lights when a station is tuned.

(d) FM MONO indicator
Lights when the FM MONO mode is selected with the FM MODE AUTO/MONO switch.

(e) Frequency display

(f) VIDEO SIGNAL display
Displays the component selected with the V-SIGNAL SELECTOR switch.

(g) TAPE 2 indicator
Lights when the TAPE 2 MONITOR switch is ON.

(h) SIMULATED STEREO indicator

(i) SURROUND MODE indicator
Displays the surround mode selected with the SURROUND MODE switches.

(j) REAR LEVEL/DELAY TIME display
When REAR LEVEL is lit, it displays the surround rear level as compared to the front level. The offset value is 0 dB. A maximum of 20 dB, and a minimum of $-\infty$ is displayed.
When DELAY TIME is lit, it displays surround delay time settings.
(k) MEMORY indicator
(l) AUTO TUNING indicator
Lights when the FM TUNING AUTO/MANUAL switch is set to AUTO.
(m) SCAN indicator
Lights during station memory scan and custom memory scan operation.
(n) STATION display
Indicates channel (STATION CALL number) or sleep time.

⑨ MEMORY switch

When the unit is in the frequency display mode, pressing this switch will result in the memorization of the current broadcast band, reception frequency, and FM AUTO/MONO mode.
This switch is also used to input custom memory names .

⑩ SCAN switch

This switch is used for both station memory scan and custom memory scan.

⑪ CUSTOM MEMORY switches

You can use these switches to classify stations assigned to STATION CALL switches into different genres of music, depending on the material played on the station.
After classifying the stations, you can recall a particular genre and scan all the stations of that genre with memory scan until you find the desired one.

⑫ GRAPHIC EQUALIZER controls

The equalizer is divided into seven frequency ranges (60 Hz, 150 Hz, 400 Hz, 1 kHz, 2.4 kHz, 6 kHz, 15 kHz) to tailor music to the individual taste of the listener.

⑬ DIRECT ACCESS tuning switch

When this switch is pressed, the STATION CALL switches function as ten-key number switches for direct input of the desired reception frequency. Press again to cancel this mode.
If the input station falls outside of the receiver's tuning range, the display section will display a message: "UPPER" if the frequency is too high and "LOWER" if it is too low .

⑭ FM TUNING AUTO/MANUAL switch

Works during FM reception.
Use this switch to select either the AUTO mode or the MANUAL mode.
When the "AUTO TUNING" indicator is lit, the receiver is in the AUTO mode (see page 13).

⑮ FM MODE AUTO/MONO selector switch

Use to select the auto stereo mode or monaural mode when listening to FM broadcasts. The monaural mode has been selected when the FM MONO indicator is lighted.
Auto stereo mode:
Normally leave in this mode for reception. When a stereo FM broadcast is received, it will be automatically reproduced in stereo sound.
Monaural mode:
When receiving distant stations or stations with weak broadcast signals, the input signal may be weak, thus resulting in increased noise during FM stereo broadcasts. In this event, setting the receiver to the monaural mode will reduce the noise. In this case, however, FM stereo broadcasts will be reproduced in monaural sound.

NOTE:
This switch has no effect on reception of AM broadcasts.

⑯ MASTER VOLUME control

Use to adjust volume level.

⑰ BALANCE control

Should normally be left in the center position. Adjust balance if the sound is louder from one of the speakers. If the right side is louder, turn toward the L position and if the left side is louder, turn toward the R position.

⑱ BAND Selector switches

These switches are used to select either AM or FM reception.
AM: Push this switch for AM reception.
FM: Push this switch for FM reception.

⑲ STATION CALL switches

These switches are used to preset and recall desired broadcasting stations.

⑳ TAPE 2 MONITOR switch

Press when listening to tape playback with the cassette deck 2.

㉑ Function switches

Use to select playback source.
[VCR/TAPE 1] — Press when performing playback on the cassette deck 1 or VCR.
[VDP/CDV] — Press when performing playback on a video disc player or CDV player, etc.
[CD] — Press when listening to compact disc playback with a CD player.
[TUNER] — Press when listening to AM or FM broadcasts with a tuner.
[PHONO] — Press when listening to record playback on a turntable.

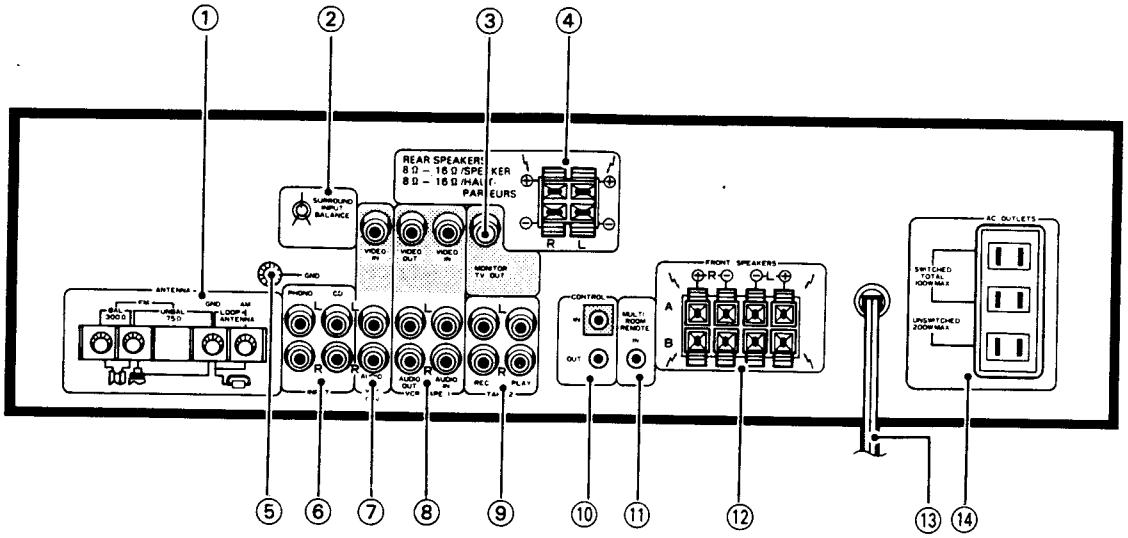
㉒ DELAY TIME switch

Operates when the SIMULATED or DOLBY SURROUND mode is ON.
For DOLBY SURROUND, 20 ms is standard.
DOLBY SURROUND:
15 ms → 20 ms → 25 ms → 30 ms
SIMULATED SURROUND:
5 ms → 10 ms → 15 ms → 20 ms → 25 ms → 30 ms → 35 ms

㉓ SURROUND MODE Switches

OFF:
To cancel the surround function.
STUDIO:
Enjoy the atmosphere of listening to music in a recording studio.
SIMULATED SURROUND:
Gives concert-hall presence to monaural sound (AM, TV, etc.).
With a monaural source, a much better surround effect is achieved if it is used together with SIMULATED STEREO.
DOLBY SURROUND:
Select this setting when watching video tapes or video discs bearing the DOLBY SURROUND mark.

• Illustration shows U.S. and Canadian models



① FM/AM ANTENNA terminals

Use these antenna terminals for receiving FM and AM broadcasts.

② SURROUND INPUT BALANCE control

This knob is for adjusting the balance of the DOLBY SURROUND input signal. To adjust, apply a monaural sound signal and rotate until the SURROUND (rear) sound becomes minimal.

③ MONITOR TV OUT jack

Connect to a monitor TV or a TV set with video input terminals.

④ REAR SPEAKERS terminals

Connect the rear speakers to these terminals.
Use rear speakers of impedance 8 Ω to 16 Ω.

NOTE:

Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctioning or breakdowns may occur when conductors come into contact with each other.

⑤ GND terminal

Connect to the ground lead of a turntable.

⑥ INPUT jacks

PHONO ..... Connect to the output cables from a turntable.
CD..... Connect to the output jacks of a compact disc player.

⑦ VDP/CDV jacks

Connect to a video disc player's video and audio output jacks.

⑧ VCR/TAPE 1 jacks

Connect to a VCR or cassette deck.
When connecting to a cassette deck, use only the L and R jacks. When connecting to a VCR, also connect the VIDEO IN, OUT jacks.

⑨ TAPE 2 jacks

Connect the cassette deck to these jacks.

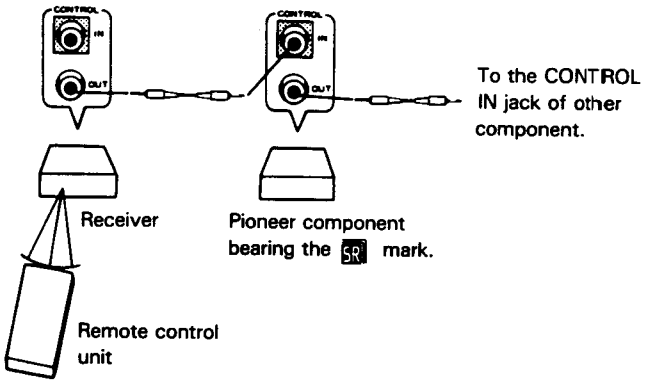
⑩ CONTROL IN/OUT jacks

IN: Connect to other Pioneer components to this jack when using those components to control this unit.

OUT: Connect to other Pioneer components to this jack when using the remote control of this unit to control the other components.

NOTE:

The receiver's remote sensor does not function when a plug is inserted in the IN jack. To operate, point the remote control unit at the remote sensor on the component to which the receiver's IN jack is connected.



⑪ MULTI-ROOM REMOTE IN jack

Connect the adaptor (MR-100, sold separately) to this Multi-Room Remote IN jack. You can operate the unit by remote control via the adaptor. It is convenient when the unit is located in a separate room.

⑫ SPEAKERS terminals

A: Connect to a first set of speakers.
B: Connect to a second set of speakers.

NOTE:

- *Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctioning or breakdowns may occur when conductors come into contact with each other.*
- *No sound will be heard through the speakers when both A and B switches are pressed if only one set of speakers has been connected to either A or B SPEAKERS terminals.*

⑬ Power cord

⑭ AC OUTLETS